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ROBERT D. JEWETT, M. D.,
J. ALLISON HODGES, M. D.,
EDITORS AND PROPRIETORS.

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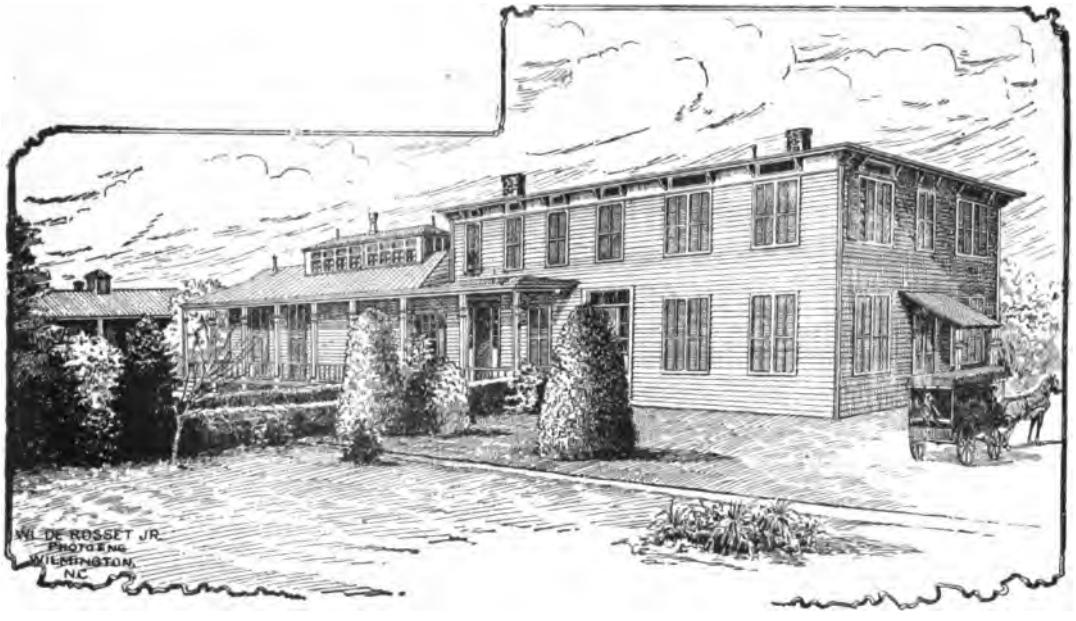

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NORTH CAROLINA

MEDICAL JOURNAL.

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Original Communications.

Contributions to this Department are solicited, especially from the profession of North and South Carolina.

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RATIONAL MEASURES FOR TREATING INSOMNIA IN ACUTE CASES OF INSANITY.

BY ISAAC M. TAYLOR, M.D., Assistant Physician State Hospital Morganton, N. C.

[*Written expressly for this Journal.*]

In six years' experience in the practice of a hospital for the insane, it has so often come to my notice that the general practitioners, under whose care cases coming to us have been, have blindly administered dose after dose of hypnotics and lost sight of the etiology of the cases they are called to treat, that it has seemed not amiss to present in a paper some of the methods for securing sleep, other than by the use of hypnotics, which we find of daily service. It would be easier to render an excuse for so elementary a paper if each one of those who read it could see the correspondence and committals on file at any of our hospitals, and know how many of our country brethren, and for that matter city ones too, are in deep water when trying to overcome the insomnia of acute insanity.

Indeed, not a few cases of beginning insanity are prejudiced by prolonged use of hypnotics, narcotics and sedatives without due notice being taken of the perverted bodily functions which lead up to the mental condition having its manifestations in the insane acts and delusions.

The subject is too broad to have adequate treatment in the limits of such a paper as this, which shall be confined to the plain statement of some of the methods in use at the State Hospital for procuring sleep for our patients.

Insomnia is the symptom most persistently prominent in most cases of insanity, and is always present in those acute cases which threaten the life of the patient from exhaustion. So prominent is it that a large proportion of cases state that as the prime cause of

the insanity instead of a symptom of the disease. Each case, of course, must be treated as its symptoms call for, but so constantly do we find that no small factor in the causation is the lack of nourishment, that in almost all cases we begin with efforts for better feeding.

I present two cases condensed from our case books, which pointedly show the results from the line of treatment I shall indicate before stating the conclusions which we have drawn from many such as these.

Miss M., female teacher, aged 32, single, admitted January 26, is quiet and coherent, rather low spirited, is in good flesh and fairly good physical health, appetite capricious, is sleeping poorly and only with hypnotics. Has chronic dyspepsia. For several days was quiet and tractable, gradually grew worse, sleeping and eating less, and on February 4th became mildly maniacal, entirely sleepless. rapidly grew worse, until February 10th she had entirely quit eating and had not slept under increasingly large doses of hypnotics.

February 10th—Began forcible feeding with free stimulation twice a day; no appreciable change until February 12th she slept two hours during the night without any drug medication.

13th and 14th—Seems an increment of improvement.

15th—Slept four hours during night and some in the day. Is eating freely without being fed. Is gradually improving, talks with some reason. General physical condition much improved, tongue is moist and sordes clearing from the teeth.

G. M., laborer, aged 28, admitted August 12th; has been insane in fourth attack for six weeks, for two weeks has been confined in jail and for that time has been maniacal, refusing food and sleepless under large doses of hypnotics; is evidently very weak; teeth covered with sordes; breath foul; pulse weak; was immediately fed by nasal tube—milk one quart, four eggs, and whiskey fl ʒ ij, tincture digitalis gtt. 20. Slept twelve hours, awoke refreshed and convalescence was established without another unfavorable symptom.

These cases well illustrated our line of treatment, and each succeeding one fixes us more firmly in our convictions. Our first care is to see that sufficient food is ingested, an offering is made from the usual dietary, and the patient is urged eat of this; failing in this, or, if not sufficient to serve the purpose is taken, milk supplemented with eggs is given, by persuasion, if possible, by force, if it is found necessary. The quantity is only limited by the capacity of the patient or the willingness with which it is received; if it is taken without trouble small amounts are given frequently, but if it must be given forcibly, from a quart to three pints of milk, with four to six eggs, is given twice in the day, care being taken that the last portion will be in process of digestion when the house is settled for the night. Stimulants are added to this in such reasonable quantity as the pulse and general physical condition seem to indicate. Of course it is not always plain sailing, and our patient does not always sleep after the first feeding, but when we know that a sufficient amount is taken, our next concern is for the proper digestion and assimilation of the ingested food. When too much is given the stomach will reject it by vomiting, or there may be set up a diarrhœa of more or less severity, showing in the dejecta masses of undigested food, but such is not often the case with those in acute mania; it is incredible how much food can be digested by them. Of course when this effect is shown a reduction in amount is made, and in some cases soups, predigested foods, peptonized milk is given, or lime water, magnesia or dextrinized flour is added to the milk

to aid the action of the digestive fluids. We do not find it so important to attempt to cater to the tastes of our patients of this class; most often the sense of taste is perverted, or, from the dryness of the oral mucous membranes, is in abeyance.

Cases of melancholia attended with insomnia are as urgently in need of better feeding as those of acute mania, but here we have new complications to meet with—almost always there is a disturbance of the digestive functions of long-standing, and, coupled with the willingness of the patients to miss food on account of their delusions, there is a limit to the amount of food which can be taken and digested, and care must be taken that it is of proper quality for easy digestion. It is not always the case that these need the invalid diet which is popular from long tradition. It is not uncommon to see a ploughman's meal digested easily by one who could not eat a mouthful of dainties with impunity.

Fortunately these cases have not the great waste of tissue which we find in cases of mania, and we can have a longer time for careful experiment as to the food suitable for each, and the amounts which can be readily digested, but the principle is the same, that with good assimilation begins amelioration of the trying symptoms. The already existing digestive disorder makes more pronounced the evil influence of the usual hypnotics. And especially do we find the case prejudiced by the prolonged use of bromides, a plan which has widespread favor with the general practitioners and the laity.

Another procedure which we find of value is the bath, the hot bath for a short time, or, what is quite as good, a cold douche; this is followed by a good reaction, which sends to the surface the blood from the internal organs, relieves their engorgement, and, with the more healthy circulation, often comes a refreshing sleep.

So far we have given no attention to the use of drugs, not because they are excluded from our use, but because they have not with us the prominence which is usually given to them. Bromide of potash we rarely give to control the nervous attacks except to calm in some cases the over-excitement of chronic maniacs for its temporary effect. Its use in melancholia, and particularly with weak and anæmic females, is especially pernicious, adding to the destructive process already existing, and, by its direct irritative action upon the stomach and digestive track, preventing proper digestion and assimilation.

Chloral we find the most generally useful of all the list, and one widest use for this is to quiet noisy chronic cases for the benefit of quiet people who need the quiet to get their rest. Of course with these the smallest dose is used, which will accomplish our object. When used for acute cases we begin with small doses, gradually reaching the maximum necessary for the effect we desire, and when that is secured we, as quickly as is possible, begin to reduce the dose. Our medium dose is twenty grains, we are willing to give thirty in some cases, never more than forty, and then only the single dose in the twenty-four hours. Our rule is to guard all the larger doses with whiskey, digitalis or atropia, and even the smaller ones, when the patient is debilitated or shows signs of weakened heart action. Chloral is sometimes supplemented with bromide of potash, cannabis indica, morphia, hyosciamus, or sometimes its alkaloid hyoscine, either singly or smaller quantities of several combined.

The combination of chloral with small quantities of hyoscine, 1-100 to 1-50 gr., has in our practice several times given peculiarly good results.

The next hypnotic in favor with us is

paraldehyde, given in doses of one-half to two drachms. We have rarely gone above the larger dose, but we would give half an ounce. We have never had unpleasant symptoms follow its use, and but for its nauseous taste and lasting odor it would be more largely in favor. Morphia and the opiates we give very rarely, except in combination. Urethan has seemed to do good in some cases, but it is weak and uncertain. Sulfonal we only use occasionally; it has not been satisfactory to us; its insolubility renders it impossible of administration to refractory patients, and its uncertainty makes it undesirable in others. Piscidia, given in some cases of drug habit, has seemed to give some good results; our experience has not been large with it. Hyoscine, not hyoscyamin, has given good results in some cases; we have given as high as 1-25 gr. without serious effect, but as a hypnotic we rarely go above 1-50 gr., given hypodermically. It is objectionable from the physiological action in drying the throat and the disagreeable after-effects.

The newer hypnotics so widely advertised have not given the satisfaction guaranteed in their enthusiastic circulars. We sometimes give a prolonged course of morphia in the case of old persons with melancholia, and in some puerperal cases following an empyrical practice which, in carefully selected cases, has proved itself of decided service.

We do not see here any cases which seem to indicate that they would be benefited by a course of chloral or chloral with bromides and morphia, as is recommended in some of the books which are still read, nor do we see those cases which are benefited by the large and repeated doses of chloral alone, as was the practice when that drug first came into general use.

We see here in connection with the different forms of insanity the most intractable insomnia, and it must follow in practice among the sane that methods which we find successful will be equally satisfactory in general practice.

We believe that if the general practitioner starts into each case with the feeling that every grain of drugs used for producing sleep has a reaction unfavorable to the case under treatment, and will prevent or prolong convalescence, and will, from the first, attempt to replace drug medication by rational hygienic methods, his results will grow more and more satisfactory.

So fixed are we in our belief in this direction, that now we do not look for decided physical or mental improvement until we have finally withdrawn all hypnotics and sedatives, and we often do this even when our patient gets but one or two hours of sleep in the twenty-four; but these are of far more benefit than the whole night's rest under a commanding dose of any of the hypnotics now in our hands.

CHARACTERISTICS OF PNEUMONIA FOLLOWING GRIPPE.

By William C. Dabney, M.D., Professor of Practice of Medicine, etc., University of Virginia.

[*Contributed expressly to this Journal.*]

I wish to call your attention to-day, gentlemen, to the peculiarities presented by cases of pneumonia following grippe.

You know that the form of pneumonia which usually occurs in connection with the acute infectious diseases is the broncho or catarrhal, or, as it is sometimes called, the secondary form; but there have been many cases of acute lobar also, and it has been far more fatal than pneumonia usually is here.

Let me relate to you now the histories of a few cases of acute lobar pneumonia consequent on grippe, and I will then call your attention to the peculiarities presented by these cases.

The first case which I shall mention was in the person of a young man who was a student here. He had grippe in the early part of January, 1890; the attack was not a very severe one, but he kept his house for several days and then rode from his house to the University to his lectures; unfortunately he was caught in a rain at this time, and forty-eight hours afterwards he was taken at night with a severe chill, which was followed by high fever and great restlessness. When I saw him a few hours afterwards his temperature was 105°, his pulse 120, full and soft, and his breathing was rather humid.

I need not go more into the general features of this case, but what I want to call your attention to especially is the peculiarity in the physical signs. I examined his chest carefully, and at my first visit could find no abnormal condition; there was troublesome cough, but no characteristic sputa.

Forty-eight hours after he was first taken dullness on percussion and bronchial respiration appeared over a small space at the base of the right lung behind and extended with great rapidity till nearly all the pulmonary tissue on that side was involved. At no time was there any crepitant râle perceptible, though I made frequent examinations of the chest. About the time the bronchial breathing appeared—not before—he expectorated the characteristic nasty sputa, and continued to do so till his death, about eighty hours after the commencement of his attack. Death was due to heart-failure.

I should have told you that this young man had had three attacks of inflammatory rheumatism, but there was no evidence of cardiac trouble therefrom.

The peculiarity about the physical signs in this case would not have impressed me so much if this had been the only case in which these peculiarities occurred, but it was a common thing to see just such features in other cases of pneumonia consequent on grippe.

Let me give you another case. A month after the death of the young man I have just mentioned his little brother, six years old, who had just recovered from grippe of rather a mild character, was taken with a slight chill and considerable fever; he had some cough but no expectoration, and he had a good deal of nausea and vomiting. His temperature reached between 103° and 105°, and his pulse was about 120; his breathing was somewhat quickened but not very rapid, and on physical examination of the chest neither Dr. Nelson (with whom I saw the case) nor I could detect anything abnormal.

It was only after the fever and other

symptoms had lasted four days that we found under the left scapula a small spot of dullness with bronchial respiration. In twenty-four hours from that time the whole lung was solid, and in forty-eight hours the child was dead.

At no time was there any crepitant râle. Death occurred from heart-failure, as in the first case.

The peculiarity of these two cases was that in both there was a total absence of any so-called "first step" of pneumonia, so far as the physical signs were concerned—that is, there was no crepitant râle. Another striking feature, not only of these two cases, but of all which I have seen following grippe, was the great tendency to *heart-failure*. There is, as you know, a great difference of opinion as to the danger of acute lobar pneumonia, and I cannot help thinking that this difference is largely due to the *locality* of the physicians who take different sides. With us in this section of country, which is so free from malaria, acute lobar pneumonia, except in the apex, nearly always ends in recovery *unless it follows the acute infectious diseases*, but in malarial sections it is one of the most fatal diseases with which they have to contend, and Dr. Towles tells me that where he lived—soon after leaving college—in a very malarial section on the banks of the Missouri river, the mortality from pneumonia was so frightful that a commission was appointed to investigate the matter.

During the past winter and the present spring I have seen several cases of lobar pneumonia presenting another singular feature, namely, a tendency to recurrence almost immediately after the crisis was reached. Let me give you the histories of two cases by way of illustration.

In January last I saw a young man, eighteen years old, vigorous and robust, and with an excellent family history, who had an attack of pneumonia in the upper back part of the left lung; the attack commenced with a chill, ran a typical course and ended on the eighth day, the temperature at my morning visit on that day being 98° and pulse 76. A few hours afterwards he was taken with another chill and another attack of pneumonia developed, the whole of the right lung being involved. This attack also lasted eight days, and then ended by crisis, but the convalescence was tedious and the lung was slow in clearing up.

I ought to tell you that this young man had had three attacks of pneumonia prior to the attacks in January—one in 1889, one in 1885 and one a year or two earlier.

The second case which I wish to tell you of occurred in a child four years old. He had always been a delicate little fellow; his limbs were small, his face rather pale and the glands under the angles of the lower jaw had at one time been enlarged. His family history, however, was good, and at the time he was taken with pneumonia—in March—he was looking better than usual.

This attack of pneumonia commenced with a chill on Monday evening, February 29th. The temperature ran up to 104° and ranged between 103° and 105° for a week. During this time he had some diarrhœa, his pulse was often 160, and never below 140; he was very restless and slept badly. On the last two days of this attack he was quite delirious.

On March 8th I saw the little patient at 3 o'clock; he had passed the crisis a few hours before and his temperature was 97.5° and pulse a little over 100. At 9 o'clock that evening I was again called, and found he had had a chill and there was a recurrence of the pneumonia in another part of the same lung. This attack lasted six days, and the symptoms were much like those of the first attack,

except that the prostration was more pronounced.

I do not know why these recurrences occurred; it is not common for pneumonia to recur in so short a time, but I do think the attacks in each case were separate and distinct. It is singular, too, that recurrences of this character have been far more common with us this winter than ever before; indeed, I do not recall ever seeing such cases before, but they have been observed by a number of my professional friends as well as myself.

I cannot say certainly that the grippe has had anything to do with these recurrent attacks, but it is singular that we have not seen such attacks before, and that in most, if not all, the cases the patients have had grippe a short time before.

THE ABUSIVE USE OF ATROPIA IN THE TREATMENT OF EYE DISEASES.

By Julian J. Chisolm, M.D., LL.D., Professor of Eye and Ear Diseases in the University of Maryland, Surgeon-in-Chief of the Presbyterian Eye, Ear and Throat Hospital of Baltimore City.

[*Written expressly for this Journal.*]

What have you done for this patient? I asked of a physician who had accompanied an old lady from her distant home, to consult me for a persistent painful inflammation of the eye. He responded, "I have only used the simplest kind of soothing eye-drop—atropia in rose-water, or some little thing of that sort." To one familiar with the powerful influences for good and for evil of this article, the most valuable, as well as the most dangerous, remedy in ophthalmic therapeutics, the answer was startling. It sounded to me as if he had said, in the most innocent manner possible, I had only sweetened her coffee with arsenic, or with some such simple powder. Atropia solutions in the hands of the average practitioner are as dangerous an eye-drop as dynamite would be a play-thing in the hands of children. Some one is going to be seriously hurt by both of them; fortunately for the doctor it will not be himself. The general practitioner had better make it a standing rule for his professional life never to use atropia at all as an eye application rather than give it the indiscriminate use so common with medical men.

That atropia solutions are invaluable, as a local application for a certain class of eye diseases, there can be no question. To save useful eyes when the iris is inflamed, there is no substitute for the mydriatics. They are worth all the rest of the Materia Medica put together. Were I restricted to one single remedy for internal or external use in the treatment of "acute iritis," an atropia eye-drop I would unhesitatingly select. But *remember this is for "iritis" alone, and for no other eye disease.* Here I draw distinctly the line. I encircle this disease "iritis," and by so doing isolate it from all other eye affections. In this peculiar sphere atropia works marvels, on account of its miraculous performances in breaking up recent adhesions of the iris to the capsule of the lens, and in consequence bringing about the immediate subsidence of the sclero-conjunctival injection. Atropia is accepted by the profession at large as a panacea for

every eye inflammation, and yet for none other of these is it necessary; and with some its application would be positively injurious. In the case of the old lady, suffering with inflammatory glaucoma, it was doing the greatest positive harm, which the soothing words and devoted attention of the family physician could not mitigate. When turpentine will put out a flame, then will atropia relieve the pain of inflammatory glaucoma. The mischief done in cases of glaucoma by the innocent but ignorant use of a so-called simple drop of an atropine solution at the hands of the general practitioner more than counterbalances in his practice its good work.

It is, however, easy to lay down rules for the guidance of the family physician, if he will only recall them in time of need.

In young persons there are no eye diseases in which atropine drops do positive harm. At the same time in very few of the eye diseases of young persons is atropia called for.

Most cases of "iritis" occur in comparatively young adults. Its most common causes—syphilis, rheumatism or traumatism, complicate active adult life, namely, between twenty and forty years of age. The symptoms by which iritis is diagnosed are sufficiently marked, even when an undue amount of conjunctival injection exists. When in doubt, the diagnosis can be made absolute by instilling into the inflamed eye a single drop of a 1 p. c. solution of the sulphate of atropia. Should dilatation of the pupil not follow in a half hour, it indicates the need of more of the atropia, as "iritis" must be present. Should the pupil expand promptly and regularly, it indicates as sharply that the drug is not wanted, and therefore should not be continued.

Primary glaucoma is rarely seen under forty years of age. It is an affection of the older members of the population. When an elderly person, *especially a woman*, seeks aid for a painfully congested eye, in which the vision has become simultaneously dull, be on your guard. You are now treading upon dangerous ground. This may possibly be a case of "iritis," or a case of simple "conjunctivitis," for any eye disease is possible at any age. But if of spontaneous origin and from no apparent cause, it is much more likely to be a case of glaucoma: a disease in which the instillation of atropine would be most dangerous. The very first drop in the eye would increase every symptom. The eye would become more injected. The pain, diffusing itself over the head and face, would be aggravated, and the vision more blurred, and possibly reduced to only the recognition of light. With this warning only the most careless would dare continue the instillation.

Those who are not brought in contact with eye diseases every day cannot be expected to make always a positive diagnosis in the obscure diseases of the eye. It would be safer for those general practitioners who have acquired the habit of prescribing atropia eye-drops to restrict its uses to patients under forty years of age. By so doing they may, now and then, neglect a case of "iritis" in an old person. At the same time, by abstaining from atropia instillations, they will protect their older patients, especially old women, when with eye troubles, from very painful and serious complications.

114 W. Franklin St.

A CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL, INVOLVING THE RIGHT FRONTAL SINUS.

By J. Thomas Wright, M.D., Salisbury, N. C.

[*Written expressly for this Journal.*]

Heeding the earnest appeal of the Journal for original matter, I contribute this case with the hope that it may pre sent some salient and interesting points.

On January 12th I was called to see a negro boy æt. 20 years, who had been injured by the explosion of a gun. As I was told by the messenger that it was probably only a flesh wound, I took no instruments except a minor operating case, with some silk sutures and bandages.

Arriving upon the scene, I found the patient in a semi-comatose condition, with quite a severe wound above the right eye which was bleeding profusely, while the eye itself seemed to be entirely destroyed; the face, moreover, was blackened and burned with powder, and very much swollen. Upon interrogation I elicited the information that the breech-pin of a gun had blown out, and bending upon itself had struck the patient over the eye, while the powder, dirt, etc., had found lodgement in the eye and face.

Suspecting—in fact, knowing—that there was something more serious than a mere scalp wound, I made an examination with my probe and was not surprised to find an extensive *complete* fracture of the frontal bone—the probe passing in without resistance, while I could distinctly feel the rough edges of the fracture. I only made a casual examination of the eye, as I deemed it totally destroyed, and then informed the congregated relatives of the extent of the injury, and advised *immediate* operation, which was accepted.

Accordingly I called in my venerable friend Dr. J. J. Summerell to assist me, and, after securing all necessary instruments, which I placed in a carbolized solution, I proceeded to render the wound as clean and aseptic as possible, using a carbolic and also a bichloride solution.

Chloroform was the anesthetic chosen, and the patient being anesthetized by Dr. Summerell, I made three incisions down to the bone, of about an inch and a half each in extent, one being directly upward, and the others to each side of the wound. Dissecting back the flaps, I laid bare the bone, controlling hemorrhage by pressure.

After removing all clots and cleansing the wound, I found a piece of bone the size of a quarter of a dollar driven in upon the brain, while numerous fragments, more or less movable, presented themselves.

I first removed all the fragments and spicules possible, then, with the aid of Dr. Summerell, succeeded, after considerable difficulty, in extricating the largest piece, which consisted of both tables of the skull, the inner being slightly fractured.

I had some difficulty, also, with a piece of the inner table which was freely movable, but was attached at one end near the superior longitudinal sinus. I feared that in detaching it I might in some way injure the sinus, but luckily did not, and after loosening removed it without further trouble.

I then examined the frontal sinus, and found its superior portion, or roof, entirely torn away and the sinus itself filled with splinters of bone, dirt and blood clots, all of which I removed, and then thoroughly washed it out with an antiseptic solution.

The patient had, previous to my arrival, been swallowing quite a quantity of blood, which had travelled down through his nose, from the sinus, into his pharynx. He afterwards vomited some of it.

After removing all sharp edges of bone and seeing that the wound was thoroughly clean, I used iodoform freely and brought the flaps together by silk sutures—drainage being provided for—and left the wound to heal by granulation.

I then again examined the eye, which was terribly swollen, and found grains of powder imbedded in the cornea, while the whole conjunctiva seemed filled with dirt and burnt powder. After cleaning it as well as I could, with warm water, I sprinkled a little iodoform in it and gave orders for the nurse to use sweet oil in and on it freely.

As the whole cornea was opaque and filled with powder-grains, I gave a bad prognosis in regard to its future use fulness.

Tne dressings, which were aseptic, completed the operation. The patient was put to bed and the small degree of shock treated by small doses of brandy with concentrated liquid food, while bottles of hot water were applied to the feet. Except light vomiting, he rallied well from the anesthetic and had a good night's rest.

The following morning I found his temperature 99¼, and gave him a saline cathartic, whereupon the temperature fell to normal, remaining there for several days. It, however, rose rapidly one morning, coupled with intense cephalalgia, which I found was caused by pent-up secretions, and upon properly washing and dressing the wound the unfavorable symptoms rapidly disappeared.

I put him on syrup hypophosphites with quinia, and also on a bichloride of mercury mixture with the bitter tonics, occasionally using morphia for pain. The eye I treated by iodoform and instillations of a solution of atropia. It did a great deal better than I had anticipated, and, instead of being an useless organ, he can now count fingers at the distance of ten feet, and tell the time by the clock, etc. There still remains some opacity, which is fortunately, however, located on the lower half of the cornea and from mere observation not noticeable. The wounds healed rapidly, except the place left for drainage, which continued to discharge for some time—the space in the bone filling up with a hard fibrous substance.

The patient rapidly gained weight, and, excepting a slight scar, looks none the worse for the accident.

Society Reports.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

Stated Meeting held in New York, October 4th, 5th and 6th, 1892.

TREATMENT OF GOITRE AND HYDROCELE BY ELECTRICITY.

Dr. Charles R. Dickson, of Toronto, Canada, reported two cases, one of goitre and one of hydrocele, which he had treated by electricity. The first one was a multilocular cystic goitre, occurring in a young man. The positive electrode was placed between the shoulders, two insulated needles made of piano wire were connected with the negative pole and one inserted in the isthmus and the other in the left lobe. A current of 30 milliamperes was used for a few minutes, and then a small electrode was placed over the tumor, instead of at the back, and a current of 20 milliamperes employed for five minutes more. After the application a simple dressing was applied. This treatment produced little change; so, thinking that greater benefit would ensue if the fluid in the cyst were a better conductor, the contents of the cyst were withdrawn with an aspirator, and the cyst then distended with an aqueous solution of chloride of sodium, one drachm to the ounce. After the electrical treatment with this solution it was withdrawn along with much gas. The cyst refilled, but much more slowly than it had done after simple tappings. The treatment was repeated, and then a compress applied so as to make firm pressure. After this, improvement, and he was in much better health. He firmly believed that a permanent cure had been obtained until, on writing to the patient quite recently, he learned that last June there had been some return of the swelling in the neck, and that at present the patient was trying some quack remedy.

The lesson which he learned from this case was that the cyst wall should have been thoroughly obliterated and the treatment persisted in for a longer time. In the case of the hydrocele the patient had been tapped three times, the cyst refilling each time within three or four weeks, and he had once had carbolic acid and glycerine injected at two different times. Seven ounces of straw-colored fluid were then withdrawn and the sac filled with a warm salt solution, 20 grs. to the ounce, and the needles used much as in the other case. A current of 50 milliamperes was used for fifteen minutes, and then a current of 25 milliamperes for five minutes more. The sac was then emptied, and it was noted that the quantity of fluid had been considerably decreased and that there was much gas present. A borated dressing was applied. On the following day the testicles were strapped in order to close the walls of the sac. This same patient also had some spots of psoriasis on the forearm, scalp and chin, which had not yielded to treatment, notwithstanding the patient had consulted a number of eminent men. There was no specific history. To lessen the resistance to the passage of the current through these dry scales, they were moistened with salt and water and each spot treated for five minutes with a current of from 10 to 30 milliamperes, and, after repeating this treatment daily for five days, the spots were decidely improved. He then was directed to make use of a very mild chrysophanic acid ointment, 20 grs. to two ounces of lard.

Three months later there was no sign of the hydrocele, his general health was much improved, and he stated that the psoriasis had entirely disappeared three weeks after stopping the electrical treatment. When the injections of carbolic acid had been made, for the relief of the hydrocele, he had been compelled to quit work for several weeks, whereas, after the electrical treatment, he was able to resume work in a considerably shorter time. Regarding the strength of the current, the author said his endeavor was to use the mildest current which would prove curative, as many delicate structures were included between the poles. When introducing the needles into the goitre the patient should be directed to swallow; then, if the needle pierced the posterior wall, the external end of the needle would be raised during the act of swallowing. The strength of the current should be very gradually increased, and the interval between the operation should be at least one week.

DISCUSSION.

Dr. Herdman said that, in considering any form of treatment for goitre, one must bear in mind the great differences existing in the various stages of the disease. There are ordinarily three stages of enlargement, viz: (1) where there is a simple dilatation of the vascular structures; (2) a stage in which there is the formation of cysts; and (3) a fibrous condition due to an increase in the connective tissue substroma. The cystic form is identical with the condition existing in hydrocele, and, as in the latter condition, injections of such irritants as carbolic acid or iodine, yield better results than electrolysis. But the fibrous form is exceedingly refractory to internal treatment, and to most other methods, except the electrical treatment. The electrical treatment is quite tedious, but it is possible, by electrolytic action, to secure absorption, and at any rate better results are obtained than by any other method.

Dr. Kellogg agreed with the last speaker as to the limitation of electrolysis in the treatment of goitre, but it must be remembered that some patients will choose the electrical treatment rather than a cutting operation, even though the latter is much more likely to prove successful. He had been pleased with the method of injecting the cyst with a saturated solution of iodide of potassium, and then submitting it to electrolysis. The resulting decomposition with evolution of nascent iodine had a salutary effect on the lining of the membrane of the cyst.

Dr. Herdman remarked that he had also had satisfactory results with this method, but he had not been able to satisfy himself about the occurrence of this decomposition.

Dr. Kellogg replied that he knew that such a decomposition occurred, for, using the solution on the electrode in the treatment of fibroid tumors of the uterus, on withdrawing the electrode it was found deeply stained with iodine if the positive pole was employed.

The President said that the frequent reports of successes in the treatment of goitre by electricity had led him to try this method, but the results obtained gave him reason for thinking that many confounded the systematic recovery with an organic change in the goitre. The great obstacle to success was imperfect knowledge of the pathology of the condition. As the goitre is associated with exophthalmos and rapid action of the heart, we have long looked to the sympathetic systems for the cause. Erb has pointed out that the condition in these cases is often one of neurasthenia, and more recently we have been told that the changes observed are due to changes in the restiform bodies. He was now trying to follow out this idea

by applying the negative pole to the base of the brain and the positive pole to the forehead, and hoped in this way to secure an effect upon the restiform bodies. Most of his cases had been treated by electro-puncture preceded by electro-cocaine anæsthesia, using an insulated platinum needle and the indifferent electrode on the back of the neck. He had also tried long static sparks. He had noted, as a rule, that the treatment was followed, after one or two months, by a diminution in the swelling of the neck and in the exophthalmos, with a reduction in the rapidity of the heart's action, but he had seen no *remarkable* diminution in the size of the goitre. To Gautier was due the credit of introducing the electro-chemical method, already referred to by the other speakers. This method Gautier now termed interstitial electrolysis.

Dr. Goelet said Gautier's results, particularly in the treatment of endometritis and in diseased conditions of the female urethra, had been very satisfactory. He used a solution of iodide of potassium (1 to 10) upon a cotton-wrapped platinum applicator, with a current of from 50 to 80 milliamperes for five to ten minutes.

Dr. Walker said he could recall many cases in which he had found electrolysis a most successful method of treating fibroid goitres. The cystic forms, like œdematous fibroids, did not come within the range of electrical treatment. He first molded a tin electrode to the shape of the enlargement of the neck, filled it in with clay and covered it with two thicknesses of cheese cloth. The indifferent electrode was a large pad covered with absorbent cotton, and was placed between the shoulders. An assistant kept it constantly wet with a solution of bicarbonate of soda. Not the slightest discomfort was experienced from using a current of 100 to 120 milliamperes for ten to twelve minutes at a time, and repeated three times a week. In the case of two adults the goitre had existed since childhood. Dr. Herdman said he would be doubtful of a given tumor being fibrous if it were of comparatively recent formation, for fibrous changes develop slowly. The President had spoken of exophthalmic goitre, which is a very different condition from cystic goitre. He had never failed to cure a case of exophthalmic goitre, yet he had treated some very severe cases. He believed exophthalmic goitre to be due to an irritation of the nerve centres controlling the circulation at the heart, and, as a result of this irritation, contraction of Muller's muscle at the back of the eyeball is produced, giving rise to the exophthalmos. In accordance with this view of its pathology he employed "the reversed continuous current," with the positive pole over the tumor and the negative one over the cervical enlargement of the spinal cord. He had tried all forms of the induced and continuous currents, but had had better and quicker results from the method described.

The President said that he had also found the electrical treatment of exophthalmos uniformly successful, but had never seen any reduction in the size of the fibroid enlargement, although the associated exophthalmos and the anæmia would be relieved.

Dr. Dickson, in closing, said that those cases which were probably the least amenable to treatment occurred in girls of from 14 to 16 years of age, and these should on no account be punctured; galvanism of the sympathetic was more appropriate. His object in filling the cyst with a saline solution was not so much to produce any special decomposition as to make use of an electrode which would fill the whole cavity, and so bring all parts under the local action of the current.

A NEW TREATMENT OP PROSTATIC HYPERTROPHY.

Dr. G. Betton Massey, of Philadelphia, Pa., said that, in order to understand the action of the current on the prostatic gland, one must remember that the bulk of this organ is made up of muscular tissue, and the chief feature in the treatment consisted in the development of the constringent power of the electric current. While mild currents are useful in superficial prostatitis, they will not answer in prostatic hypertrophy. Here "swelling currents" should be employed, the current being increased from 20 to 70 milliamperes, but only allowed to remain at the maximum strength for a few seconds. If the manipulations are conducted with scrupulous cleanliness and great gentleness, and the sittings repeated not oftener than every five days, the treatment will be followed only by a feeling of relief. The primary current is also used at each sitting, and the author considered it a valuable part of the treatment. He had found this same method also of service in a condition often associated with hypertrophy of the prostate, i. e., a diminished contractibility of the bladder. The speaker exhibited a home-made instrument which he had employed for this treatment. It consisted of a silver catheter with a large prostatic curve, which is covered with fuse rubber, except just at the eye. The instrument being hollow, enabled one more easily to locate the position of its beak.

DISCUSSION.

Dr. Rockwell had been unable to obtain satisfactory results from the electrical treatment of these cases, either by the method described, which is the ordinary application, or by a number of others which he had tried. He had had an opportunity of treating, recently, a case of marked prostatic hypertrophy, on whom suprapubic custotomy had been previously performed, so that there was an unusually good opportunity for observation. With an insulated needle introduced through the abdominal opening, the prostate was pierced to the depth of one-quarter of an inch, and a current of from 15 to 30 milliamperes employed on several occasions, but when the current was finally increased to 50 milliamperes, the treatment was interrupted by the development of an orchitis. With the subsidence of this inflammation there was a notable decrease in the size of the prostate gland, allowing the patient to pass his urine quite freely. Afterwards the needle connected with the negative pole was introduced into the prostate through the rectum.

Dr. Massey, in closing, said that his experience in this treatment was limited to two cases, both successful. In the first one, that of a man 73 years old, who had been unable to urinate spontaneously, the patient had recovered this power, and had not lost it a year or more later. In the second case rectal touch showed a marked diminution in the size of the gland after the treatment.

Selected Papers.

A FEW SUGGESTIONS UPON THE TREATMENT OF FRACTURES.

By G. W. King, M.D., Helena, Montana.

Upon a former occasion I brought to your notice the subject of fractures, and in a general way demonstrated how unattainable were perfect cures by our present methods of treatment. It is my purpose at this time to discuss ways and means whereby we may lessen the probabilities of permanent deformity after fractures. That the outcome of these injuries is doubtful is evidenced by the fact that no reputable surgeon can conscientiously promise a perfect cure in any case. When the orthodox treatment fails, what are we to do? Follow it implicitly, instead of attempting to devise other and better means? The interests of our patients demand progress in all departments of surgery. Mechanical skill is therefore an essential qualification of the practical surgeon. Without it none can hope to excel, much less avoid many and serious blunders. The ability to see things mechanically, to detect ordinary imperfections, to know when they are out of shape or plumb, is not given to every one alike, nor can it be cultivated without persistent labor. Manual dexterity becomes as necessary to the operator as to the musician. Something more than the skill to read music fluently must be accomplished by the latter; his fingers are trained by constant practice to touch each key with accuracy at the proper instant, producing harmony instead of discord.

To know all the steps of an operation is one thing; to execute them in a masterly manner is another. Special training for the work is absolutely demanded in either case. There are very few cases strictly surgical that do not require the services of the hands as well as of the head.

One of the early writers, speaking of the qualifications of the surgeon, says: "He should have a firm, steady hand, not liable to tremble, and be no less dexterous with the left than with the right." When we consider how vast has been the field of research in medicine and surgery, and how rapid has been the progress of the latter in recent years, it is apparent that to become equally skilled in all departments is beynd the scope of the individual. There must, therefore, be in every physician's practice certain branches in which he becomes proficient at the expense of that which remains. The hurry and worry of general practice leave no time for special work—indeed, so exacting does it become that only those with extraordinary physical endurance can long withstand its demands.

Division of labor is therefore an advantage in that greater skill may be acquired by those whose work is limited to certain lines of practice. Naturally, the experience of one who treats but a single fracture in a year is not considered nearly as conclusive as that of one whose cases are numbered by the hundreds, and yet much may be learned from a single fracture, especially if it is complicated and turns out badly.

The principles laid down by writers centuries ago have not been changed—indeed, the indications are so plain that the most ignorant cannot mistake them. To place the broken ends of the bone in apposition and retain them, at the same time preserving the normal relation of the limb, is the sum and substance of all treatment. This is what the savage, with his thong of buckskin and sticks interwoven, attempts to do and often succeeds. This is what the skillful surgeon, with his splints and dressings, hopes to accomplish, and often fails, because he is bound by precedent, from which he cannot deviate without endangering his reputation.

The reduction or the so-called setting of the fracture is the most important part of the treatment. Whatever displacement persists under the first dressing is liable to become permanent. After effusion takes place and the muscles lose their elasticity, there is little hope of correcting longitudinal deformity.

The golden moment has passed. Accurate knowledge is necessary to enable one to decide when the reduction is complete, for it is possible for the normal contour of the limb to be preserved when the fragments of the broken bone are far asunder. If such a condition remains unrecognized until the swelling disappears, it will be too late to apply the remedy. The skillful handling of fractures is not so complete a matter as many believe it to be. Failure to approximate the fragments means months of suffering to the patient, a prolonged convalescence, and perhaps permanent disability. Look at the tremendous task imposed upon Nature when a fracture remains unreduced. The fibrinous material, instead of exuding between the fractured ends as it would do were they in apposition and kept quiet, must bridge over the intervening space at a great disadvantage. The only wonder is that union takes place at all.

Since reduction and retention is the treatment, it should be made as absolute as possible. Mobility of the fragments is directly antagonistic to prompt union. The excessive exudations caused by it must be subsequently got rid of by the slow and unsatisfactory process of absorption. Time is an important consideration to those who have to depend upon their daily labor for the support of themselves and families. It is among this class that such accidents most frequently occur. For humane reasons, then, as well as for his own reputation, the surgeon cannot afford to omit any of the details of treatment that are likely to aid in bringing about a speedy cure. The important question of how we shall put up our fractures cannot be definitely answered—the royal road has not been found.

Most of us have been familiar since our student days with all the plans recommended and in use. Yet, were we called upon at this moment, what form of retention from among the multitude would we choose? It might be urged with some reason that the choice would be governed by time and place, the means available, and so on. True, circumstances may have weight; emergencies must be met wherever they occur, whether our resources are limited or otherwise. Some forms of dressing are difficult to manage and require an expert to succeed with them. Take, for example, the common board splint. He who attempts to fit it to the irregularities of a limb has my sympathy, for I know he has undertaken an impossible thing. He may be able to make a compromise—that is all, and that compromise may be fraught with danger, for even a little tension applied to the wrong point will do irreparable injury to a broken limb. For this reason, and the constant readjustment necessary to make them of any use, they can now be profitably superseded by something better. After having tried most of the materials recommended for splints, I have come to rely upon the plaster-of-Paris bandage as the most efficient dressing for fractures yet introduced.

Referring to personal experience, I have a record of 25 recent cases of fracture of lower extremities, comprising two intracapsular, one through condyles of femur, two through middle third of femur, eight of tibia and fibula, four of these being compound; two of the latter were accompanied by fractures of femur upon opposite side. There were twelve cases of fractures of fibula. Nearly all of these injuries were seen immediately after they occurred, and, with one or two exceptions, the plaster bandage was applied as a primary dressing. The result in the main was excellent. Two of the cases only presented any marked degree of disability. Both were what is known as "Pott's fracture," one being complicated with fracture of internal malleolus with wedging of the astragalus, rendering complete reduction impossible. The other patient recovered, with limited motion in the ankle-joint.

Now, as to the technique of applying the bandage. At our last meeting I exhibited sketches of an apparatus for that purpose. I now take pleasure in presenting you with the latest model of the instrument itself. As stated at that time, the principles involved in its construction are the application of extension and counter-extension, with the limb suspended and fully accessible. Assistants are not required, for the instrument itself is more reliable. After the limb is once placed in position and the tension applied, all that remains to be done is the simple application of the bandage. The traction is so steady and gentle that no pain is experienced during

the process. Muscular action—the principal obstacle to successful reduction—is easily overcome, and we no longer have to see our patients writhing with pain while the twisting and pulling formerly practiced are going on. Another important consideration is that we are able to prevent displacement while bandaging the limb. After the plaster hardens the instrument is easily removed. It is usually preferable to lay the limb upon its outer side in the flexed position until all tendency to muscular spasm has passed away. There is then no objection to extending it horizontally, if the comfort of the patient requires it.

Fractures of the arm and forearm can be reduced by the instrument with equal facility; and in emergency cases, where no assistance is at hand, the surgeon can by its aid apply his dressing in a thorough and workman-like manner immediately upon his arrival, avoiding the delay that sending for extra help would occasion.

The plaster bandage may be used under nearly all circumstances, but its value is perhaps better appreciated in mining accidents, where transportation must greatly aggravate the injury. Here, by placing the patient upon a litter and applying the splint first, there is no possibility of doing further harm in hoisting to the surface.

In regard to the convenience of the method, there is certainly less trouble in carrying the meterials than that of any other. A small, air-tight tin canister, capable of holding a small quantity of dry plaster and a few bandages, can scarcely be considered cumbersome. Enough for one or two dressings can always be kept in readiness, so that when the call is urgent, no time is lost in hunting up old splints and bandages, with the hope that they may be able to do service until something better can be substituted

I have but little faith in temporary dressings—in fact, do not believe in them at all. If the immediate reduction of a fracture is good surgery, then permanent retention is better. An additional half-hour spent in getting things just right, may save the surgeon many sleepless nights and exempt him from costly litigation later on. The only exceptions to be made are in those severer injuries where no attempt can be made to set the broken bones at the time of the injury. Occasionally we have to deal with a troublesome oblique fracture, in which perfect retention is next to impossible.

I have lately been conducting a series of experiments upon animals to determine the advisability of nailing the fragments together. I have succeeded in demonstrating that a clean steel nail is innocuous, and does not interfere with prompt union. Successful cases by this method have been reported. I shall certainly have no hesitancy in securing coaptation in that way should occasion offer.

Position in the reduction of fractures ought not to be overlooked. Here an intimate knowledge of anatomy is desirable. Take, for instance, a fracture through the middle or upper third of the forearm. To place the hand in a supine position during the setting of the fracture, and then to immediately twist it over to the semiprone and retain it there, appears to be a wanton transgression of mechanical principles, and often results in loss of function. Surgeons have from time to time noted the inconsistency, but hitherto have failed to profit by their own suggestions. There is no difficulty in retaining the arm in the supine position during the treatment if the plaster bandage is applied and carried well above the elbow, and finally the arm swung well back against the side and resting in a sling. After a week or ten days that portion extending above the elbow may, with advantage, be removed.

Here is an illustration of a case of comminuted fracture of the humerus that came uuder my care last summer—one fracture at the surgical neck, the other above the condyles. The first application of the bandage did not include the elbow. The arm was bound to the side while the plaster was pliable. This, with the weight of the arm, reduced the displacement completely; at the end of a week this splint was removed and a new one applied from the wrist upward to the shoulder, holding it in rectangular position. The cure was rapid and satisfactory, and, aside from the application of the dressings, required no further care.

With increasing experience in the management of fractures, I can confi-

dently assert that, with the plaster-of-Paris bandage as a primary dressing, to be followed in the convalescent stage by the silicate of sodium, we can achieve the best results. I know, also, that the ever-varying conditions call for the exercise of great judgment as well as a practical knowledge of the art we practice.

Thorough honest work is the need of the hour. Into our hands come the unfortunate victims of a thousand accidents, stricken and mangled even unto death. Let us see to it that neither negligence nor incompetence on our part, shall send them forth crippled and deformed when it is within the power of human skill to prevent it. More time devoted to study and experiment, less to criticising and slandering our brother physicians, will ennoble the profession and make each member more worthy to practice the "divine art of healing," and more worthy to receive the reward "Well done!" when his labors are ended.—*New York Medical Journal.*

HEMORRHAGIC AND PURULENT PLEURISY, WITH A REPORT OF CASES.

By William H. Kelley, M.D., Cincinnati.

In introducing the subject of hemorrhagic and purulent pleuritic effusions and the treatment of these conditions, I would like to report two cases, illustrating the two diseases.

CASE I.

Alita H., æt. 19 months, a strong, beautiful child, but with a tubercular family history, a sister of mother and also a sister of father having died of phthisis. Was taken ill in August, 1891. The physician in attendance told the parents she had pleurisy. From the parents' account of the case she had fever, hurried and groaning respiration, and a hacking cough, which, however, did not at first appear painful, but after about two weeks became so painful that every cough caused the patient to cry. Fever was always present, ranging from highest elevation (104.5°) to a point where the attending physician said she was almost free from fever. The patient lost appetite, was sleepless, constantly fretting and worrying; became very thin and pale; could not lie down; had to be held in some one's arms, and was in a generally miserable plight.

This condition of affairs, with periods of apparent slight improvement, continued until I first saw the case, in the afternoon of November 20, 1891. I found the child thin and anæmic, a facial expression of marked suffering, hurried respiration, alæ nasi working with every breath, and all the signs of dyspnœa; veins of neck and face somewhat distended and a swollen appearance of encountance. Temperature 102; pulse 160. Parents told me she had fever in the evening, but in the morning was free from fever; the evening rise of temperature went off about midnight with a night-sweat. Some cough, especially at night. Physical examination showed the right pleural cavity filled with fluid. Bronchial breathing and dullness posteriorly along vertebral column about internal end of spine of scapula; over rest of right lung absolute flatness. Intercostal spaces obliterated, and in lower part of the lung even bulging. Left lung normal except some bronchial râles, which accounted for the cough present. Other organs normal.

Aspiration with a hypodermic needle filled the syringe with greenish, rather thin pus. From the family history and that of the patient, the fluid was supposed to be purulent or hemorrhagic. The fact that the left lung was not much diseased, and that the right lung was compressed into so small a space, argued against a hemorrhagic effusion depending on a tubercular pleurisy; still there was possibly a tubercular process back of the purulent pleurisy.

The question now arose what to do. The child was almost worn out, unable to take nourishment, bowels deranged,

thin foul-smelling stools and the usual symptoms of advanced sepsis. A free opening and drainage as complete as possible was decided upon. Aspiration might afford temporary relief, but it is only exceptionally that one aspiration suffices to cure such cases, and it was feared that further suppuration, with the accompanying septic infection, would produce fatal exhaustion. The proposed treatment was stated to the parents, and after a few days they agreed to it. The idea in the operation was to treat this case as any collection of pus would be treated—open at the lowest point and drain. The incision was made somewhat inside of the posterior axillary line and at the lowest point, when, with a clean hypodermic needle, pus could be aspirated.

The usual antiseptic precautions were followed. The patient was given a few whiffs of chloroform, and, expecting to be compelled to remove a piece of rib, the incision was made over and as close as possible to the lower edge of the rib, and the pleura opened. The pus was allowed to escape slowly, and as no cough or unfavorable symptom developed, the cavity was left to empty itself. When this had occurred it was found that the ribs fitted so closely that it would be impossible to drain with any tube without resecting a piece of rib. Taking a bone forceps, a triangular piece of bone, base below and apex above, was cut out and the pleural cavity thoroughly flushed with hot water until water returned clean. A soft rubber drainage tube was introduced and the wound stitched around the tube; an antiseptic bandage was applied over this. After the operation the patient began to improve, and went on to complete recovery.

The patient being in the country, Dr. T. T. Metcalfe, of Independence, Ky., took charge of the case, and his care and skillful attention had much to do with the rapid progress to recovery. Day by day he shortened the tube, until in two weeks it fell out and the wound closed. In about a week he noticed a slight bulging in the wound, opened it, and about half an ounce of pus escaped. The wound again closed, and since then the child is in robust health. The lung expanded, and outside of a line of dullness about a finger's width along the line of incision, the lung is as sound as the other.

CASE II.

The second case was not so successful. Clara J., about 12 years, always rather a delicate child, but had had no definite disease; lost one brother with "brain fever;" no other suspicious family history. Last winter the patient had an hæmoptysis which was rather profuse; a temperature of 104° for several days, with hard cough, bringing up a quantity of blood-red and frothy mucus. Several careful examinations of the chest were made, but nothing abnormal found in the lungs. It was not believed to be grippe, and the case was kept under observation until May, 1892, when she went to the country, where she spent about six weeks. On her return she was the picture of health—cheeks round and rosy, no cough—and an examination of the chest still gave negative results. The case was lost sight of until November, 1892, when she was again seen, and found to have a temperature of 102°; pulse 120; could not lie down; marked dyspnœa; loss of appetite; sleeplessness; pale and pinched face. Examination showed flatness of left half of chest, except posteriorly along spinal column, where there was impaired resonance. Over this space along spinal column the respiratory murmur could be heard, somewhat sharpened and accentuated, but not amounting to bronchial breathing. In apex of right lung some jerky inspiration and prolongation of expiratory murmur, but as yet no marked impairment of resonance. Heart beat at right border of sternum. Other organs normal. Some trouble of left foot, to be mentioned later.

Here was a case where, from previous history, it was expected that the fluid was hemorrhagic, possibly purulent. Hypodermic aspiration showed it hemorrhagic.

The patient must be relieved, and, with the statement to the family that the fluid would almost certainly re-accumulate, aspiration was advised. This was done in the posterior axillary line in the seventh interspace, and about a quart and a half of bloody fluid withdrawn. She felt the usual relief in such cases; the fever, however, continuing. In five days the fluid in the pleural cavity became again appreciable, and, as a permanent cure could not be promised the

family, the case drifted into another physician's hands. The disease progressed to a fatal termination in about three weeks.

From what was heard of the further history of the case, it seemed that the fatal termination was due to the amount of fluid in the chest cavity, and not from further progress of the pulmonary trouble. After the aspiration the lung expanded fairly well, and there were no marked evidences of disease of the pulmonary tissue. The lung was adherent to the posterior wall of the chest; this was evident before aspiration. Outside of this the lung seemed to be in as good physical condition as could be expected after having been compressed as it was by the large fluid accumulation. The right lung was only in the first stage of the tubercular process, and there was no evidence of tuberculosis elsewhere, unless possibly in the tarsal bones of the left foot. Here, over the scaphoid and internal cuneiform bones, was a swelling not tender to pressure and not reddened; this enlargement was fixed, and apparently involving the bones. Once or twice this swelling had become red and tender, and on the plantar surface had opened, discharging a cheesy material. While the case was under observation there was no evidence of inflammation at this point. If this enlargement was a tubercular process, it may have been the focus of infection causing the pulmonary disease.

In this case aspiration was advised to relieve the immense intra-thoracic pressure, hoping that there would be no reaccumulation. Would the radical operation, on the principle of laparotomy for tubercular peritonitis, have more favorably influenced the disease? Authorities are against it, but innovations must fight for existence.

The causes of pleuritic effusions, purulent and hemorrhagic, may be local or systemic. Probably the local condition is causative of more purulent collections than hemorrhagic ones. A simple serofibrinous or hemorrhagic fluid may become purulent. Repeated aspirations, admission of air into the pleural cavity, etc., are causes assigned when this change occurs. Without any surgical interference this change may occur, especially with children.

The effusion may begin very early as a purulent fluid; Wilson Fox calculates this proportion of cases at from 14 to 20 per cent. of all purulent pleurisies. Purulent pleurisy may depend upon caries of a rib, traumata of the chest, abscess of the thoracic wall, and such causes as would produce pus in another part of the body. It may follow scarlet fever, measles, or any disease producing marked depression of the general health. It may depend upon gangrene of the lung, tubercular cavities rupturing into the pleural cavity. Attimont found 18 per cent. of fatal cases of purulent pleurisy to depend upon tubercular disease.

In purulent effusions in the pleural sac we may have sacculated conditions of the new-formed membrane, giving separate pus collections, distinct from each other and from the general pleural cavity. Hemorrhagic fluid in the pleura may depend upon a simple pleuritic inflammation, but most frequently upon tubercular or cancerous disease. Trousseau held that malignant growths caused all hemorrhagic pleurisies. Hemorrhagic effusions may follow any condition characterized by profound changes in the condition of the blood. After any pleurisy with adhesions of pleura and formation of new membranes, the sudden expansion of the lung, stretching and tearing the tissues, may cause hemorrhagic effusion.

Dieulafoy claims that each cubic millimeter of effused fluid must contain at least 5,000 red blood-corpuscles before the fluid can be considered hemorrhagic.

The source of the blood in these cases is from the new membranes resulting from the inflammatory action; and from the tubercular or cancerous growth. In some cases of intense congestion, the red blood-cells may escape by diapedesis as do the white corpuscles.

A hemorrhagic pleurisy may become purulent; in fact, Dieulafoy claims that every purulent pleural effusion was originally hemorrhagic in character.

In cases of purulent or hemorrhagic effusion in the pleural cavity dependent upon a tubercular process it would be expected that the tubercle bacillus could be easily demonstrated in the fluid, and thus there would be a reliable method of determining the simple from the tubercular variety. Jaccoud and Rosenbach insist upon the fact that it is very diffi-

cult to detect the bacilli in any pleuritic fluid, while Ehrlich claims that this holds good only of sero-fibrinous effusious. The absence of the bacillus does not positively demonstrate the non-tubercular nature of the process; in such cases inoculation experiments must decide. Excluding cases with appreciable tubercular disease of lung tissue, it may be very difficult to determine the nature of the case in hand. This is, of course, important to us, as it influences the prognosis.

As to the diagnosis, any one who determines the presence of fluid in the chest cavity can, with a clean hypodermic needle, easily determine the nature of that fluid. Objections have been raised that the aspiration with even a hypodermic needle would admit air, which, in case of a sero-fibrinous effusion, would convert it into a purulent fluid. This can only happen in rare cases, and that usually with those who not careful as to the cleanliness of instruments.

As to the treatment of hemorrhagic or purulent effusions in the pleural cavity, of course indications must decide. When a large effusion is present, causing intense dyspnœa, in order to increase the breathing space, and thus promote the comfort of the patient, the fluid must be partially or entirely withdrawn. This, of course, can be done by aspiration, and thus is fulfilled every indication of palliative treatment. When, however, the subject of curative treatment comes into discussion, the question arises, Is simple aspiration sufficient? In hemorrhagic effusions the surgical authorities deem aspiration, repeated as often as may be necessary, sufficient.

In the vast majority of hemorrhagic effusions there is a constitutional cause, which is not amenable to local treatment; here aspiration is almost solely a palliative treatment. The withdrawal of the fluid improves the condition of the patient in so far as it relieves the dyspnœa, and the pleura and lungs of the effused material. This gives a better chance to improve the constitutional condition, and thus relieve the cause of the pleural irritation. An important proportion of the hemorrhagic cases depends upon tubercular infiltration of the pleura and the pulmonary tissue just under that membrane.

It has been suggested that, if there are no appreciable tubercular deposits in other parts of the body, and the affected lung is not seriously involved, complete drainage should be substituted for simple aspiration.

The surgical treatment of tubercular peritonitis has been successful in at least 50 per cent. of cases. The usual laparotomy for tubercular peritonitis is no more than removal of the fluid and flushing out the peritoneal cavity. Aspiration of the fluid and flushing the pleural cavity would do as much in tubercular pleurisy unless the laparotomy itself has some unexplained dynamic force.

In purulent pleurisy the choice between aspiration, with or without flushing the cavity, and a free incision, with or without resection of a portion of rib, presents itself. Authorities advise one or two aspirations before incision, especially in children, while other authorities, Schede, Curschmann, Frœntzel, Von Ziemssen and others, believe in the immediate radical operation. This choice may be modified by the condition of the patient; if there is a fair general condition, no marked septic symptoms, aspiration might prove successful. Jacobi reports three cases in children cured by a single aspiration in each case. One French observer (Bouchet) reporrs one case cured after 33 aspirations. Between these two extremes the number of aspirations necessary to a cure varies. Few operators of the present day, however, would possess the perseverance of the Frenchman, and would have soon resorted to the radical procedure. Bowditch, who, with Wyman, has made aspiration the popular method of treatment for pleuritic effusions, advises three aspirations, and if pus re-accumulates, then the radical operation.

How much fluid shall be withdrawn? Authorities again differ; a few advocating the removal of only a small quantity; but with the modern horror of accumulated pus anywhere in the human economy, the general rule is to remove as much pus as possible, and then flush out the cavity with antiseptic fluid or simple boiled water. Adhesions between layers of pleura may encapsulate pus, and there may be pus cavities separate and distinct from the general pleural space. These, of course, will require aspiration and flushing before a cure can

be expected. The radical operation was for a long time considered the last resort, and was only used where all other means of treatment had failed. With our present precautions as to cleanliness and asepsis the operation has come into more general use.

The choice of the method of operation is of no importance, provided the surgical requirements of the case are filled—to remove all the pus through an incision at the lowest safe point of the pleural cavity, maintain an opening sufficient for complete drainage of all discharge, and prevent infection of the pleural sac.

As to the location of incision, every operator has his choice—whether posteriorly or anteriorly, high or low—but it seems the best surgical practice to make the incision posteriorly and as low as safe. The upper surface of the diaphragm, which is the lower limit of the fluid, extends lower posteriorly than anteriorly, and thus we reach the most dependent portion of the fluid, and with a free incision we have the most suitable conditions for complete drainage. The incision should be large enough to admit one finger, which should be passed into the pleural cavity to determine if there are masses of new membrane loose and needing removal, and to thoroughly open all pus cavities shut off from the general cavity. In children it is usually necessary to remove a piece of rib to make space for the drainage; otherwise the ribs lie so closely together that the pressure would close the tube and prevent the all-important free drainage. Allow the accumulated fluid to escape slowly, watching carefully for increased oppression of breathing, collapse or other unfavorable symptoms. If such should develop, with a surgically clean cloth or antiseptic cotton over the incision stop the flow until matters have adjusted themselves. Then allow the flow to again commence and continue until all flow stops. Then irrigate the cavity with an antiseptic wash or sterilized water until it returns clear. Now comes the important step in the operation—the drainage-tube. You may use soft rubber, hard rubber, silver, etc., but the best is a medium-sized soft rubber tube; this is soft and does not by counter-pressure irritate the surrounding tissues. Have it long enough to extend to the deepest part of the pleural sac and fix it in the wound. Then close the wound up to the tube and place antiseptic dressing over all. Dressing will need changing every day for several days; then you may begin to shorten the tube and gradually decrease it until it is finally removed entirely and the wound allowed to close. During the after-treatment have the patient so placed as to bring the wound as low as possible. Give nourishing food, plenty of fresh air and tonics. As soon as possible have the patient commence deep inspirations to expand the lung and stretch old adhesions.

In this cursory paper many important points have been omitted or just mentioned. These, it is hoped, will be brought out in the discussion, and give some member of the Academy a point upon which to hang an argument.

It would be interesting to hear the experience of the members in treating hemorrhagic pleuritis, and if, in cases resisting repeated aspirations, any other operative procedure had been adopted.

DISCUSSION.

Dr. F. Kebler: It is going rather far when a man who is not a surgeon discusses a suject of this character, and especially so when he questions the operation. I would first question the advisability of using the hypodermic needle in diagnosis. It seems to me that a hypodermic needle is very apt to lead us astray. If, by the use of the hypodermic needle, you get fluid, you can tell something; if you get no fluid, you can tell absolutely nothing. The fluid, in the first place, may be so thick that it cannot flow through the needle. I have seen several cases where the hypodermic needle revealed nothing and subsequent aspiration revealed pus. If we do not find pus, we think the hypodermic needle at fault, and then use a larger needle. Now, why not use the larger needle at first? An ordinary aspirator needle can do no more harm than a small hypodermic needle. Very often we find flakes of lymph mixed with the pus, which will not enter the hypodermic needle. Again, sometimes the walls are so thick that the hypodermic needle cannot penetrate to the fluid. Therefore, I would ask whether a properly prepared aspirator needle is not just as safe and infinitely

better than a hypodermic needle. In regard to the advisability of aspiration as a means of cure, I have personally never seen a case where a purulent effusion in the pleura was cured by aspiration, and so firmly convinced am I of the fact that empyema is a surgical disease, that in hospital practice, when I find pus coming into the aspirator, I do not withdraw all the pus, but stop the aspiration immediately and turn the case over to the surgeon.

Dr. Joseph Ransohoff: It has been my good fortune to see a few cases of empyema. I am certainly under-rating, rather than over-rating, when I say I have operated upon fully thirty cases. I have come to very near the same conclusion as Dr. Kebler, viz: that we should not draw off the pus, but should proceed to the thorough drainage of the cavity. Nothing truer has been said on the floor of the Academy than has been said by the same speaker in reference to the hypodermic syringe. In a thick walled chest it will not begin to touch the pleura, even if it is normal, and in an individual with considerable fat it is necessary to have a needle at least one and one-half inches in length. Now, it is not very convenient to carry an aspirator with you; it is just as easy to carry a needle measuring an inch and a half to two inches in length. This is sufficient to draw away a few drops. If the fluid is too thick to come through, you may get a fluid sufficiently tinged to at least show that pus is there.

Regarding the etiology of pus in the chest a great deal has been said. If you will trace the history of such cases as you may recall, it will be surprising how many cases which seemed to have been cured by one or two tappings, finally, after a few years, go on to a fatal termination, with the ordinary manifestations of pulmonary tuberculosis. The pus is formed by the germs, either in the cavity or brought there by the aspiration. As to whether suppuration be produced there, I think has not been shown, but I think it can be safely said that the tubercular bacilli can produce pus. It is rare that a cavity of a tubercular character goes through the pleura sack. I will ask our pathologist how frequently he has found cases of empyema caused by the rupture of the pleura.

Dr. Kebler: Very rarely indeed.

Dr. Ransohoff: Indeed, it may be said, if there is such a cavity perforating into the chest, purulent affection may not take place, for there seems to be a kind of filtering process going on. For example, where a rib breaks and damages the lung, so air goes into the lung, suppuration is not the ordinary result. The tubercular bacillus is capable of producing suppuration or pus. Now, why should it not do this in the chest as well as in some of the joints. It is not uncommon in the knee, for instance, to find pus where there has been no injury to the knee, and not unfrequently the suppuration is not simply cheesy matter, broken-down tissue, but the ordinary pus. An ordinary tuberculosis, *per se*, can produce pus. Cases which run on without any very great elevations of temperature, are, for the most part, of tubercular character. There is another form of empyema, which occurs more frequently in children, in which the inception comes with all the manifestations of pneumonia. These are the cases in which we have pneumonia involving also the pleura, and suppuration into the pleura, which I am certain occur very frequently. In ten or fifteen days suppuration is usually present. In a case upon which I operated the pus was found on the fifteenth day, and the chest was opened on the seventeenth. The fact that the pneumococcus can produce pus has been pretty well proven. If we were to exclude the tubercular and the pleura-pneumonic empyemas, we would exclude about 95 per cent. of cases of empyema.

Regarding the treatment of empyema, it is safe to say it is not a medical condition. It may be caused to disappear by applications, and in children by early aspiration a cure may be effected, but I have never seen a cure of empyema by aspiration. Dr. Wenning reported a case which was aspirated, and the man died suddenly about a year after the operation, and the chest was then found to be full of pus. Now, what is to be done? Drainage is the first thing. The lowest portion is the eleventh intercostal space behind, but I do not think the essayist would think it well to drain so far down. It would not be well to make an incision so far down, because cases which are of two or three months' standing are almost

sure to have adhesions present, which will not allow the lung to expand at once. If you have adhesions which will not let the lung come down, the diaphragm will be drawn up and fill the space. Therefore I do not think the lowest point is the one where we should make the incision. The incision into the pleural cavity is one of the simplest operations in surgery, in children, where we have such an exceedingly yielding chest wall, and where no adhesions have taken place, it is only necessary to make an incision. I have never had occasion to excise a piece of the rib, as the essayist has mentioned. My friend, Dr. Kebler, asked the advisability of using antiseptic dressing after the incision is made. I will state that we then have to look out for other things than the germs of suppuration. For instance, we might have erysipelas germs carried in. In empyema operations the wound, after twenty-four hours, is not where you put it. When you take the incision in the ordinary manner, the retractors are brought into the soft parts, and the intercostal space opened. After the operation the muscles contract and the opening in the chest cavity is in reality the narrow end of a funnel, and there is nothing better in the world for the retention of pus than is here presented. Now, the patient upon whom I operated has not only the scar which I made, but has numerous scars from the shoulder-blade to the coccyx.

We can usually tell from the temperature chart whether there is any other septic condition than that of the empyema. I understood the essayist to say that he put in as long a tube as possible. I have gotten over this practice for the reason that, if the lung expands at all, the tube will give rise to coughing. Of course, where the lung is bound down and the pleura is thick, the tube can do no harm by coming in contact with the pleura. But, under ordinary circumstances, if the tube comes in contact with the pleura it will cause coughing. Therefore I use a tube of just sufficient length to come through to the pleura cavity. In adults where the trouble is acute, we will ordinarily get along with just incision, but where the case is of long standing, the wound ma[illegible]eed further treatment. A portion [illegible]he rib excised will not usually relieve [illegible] trouble, and we may have to take out [illegible]o or three ribs.

Dr. Kelly (closing): The obje[illegible]of using a hypodermic needle is that it [illegible] smaller needle, and is therefore not likely to cause damage as a larger on.

In regard to the location of the incision and the length of the tube, I did not intend to say to make the operation as low as possible, but simply as low as safe, and not to put in a tube as long as possible, but one that is of sufficient length. The incision is not the principal thing, but the important point is the complete drainage. The location of the incision will, of course, depend upon the condition of the lung. If the lung seems to be adherent, it would be advisable not to make the incision as low down, or put in as long a tube as you would otherwise. In the case which I reported, after the fluid had exhausted itself I could not introduce the tip of my little finger between the ribs, it seemed that when the intra-thoracic pressure was relieved there was a collapse of the ribs, and they seemed to over-lap each other like shingles. I was striving after complete drainage, but did not want to use a very stiff rubber tube for fear it would cause irritation; therefore I exsected a piece of the rib. The idea was to get a piece of the rib out of the way in order to allow space for the tube.

I hoped some of the speakers would pay attention to the hemorrhagic effusion, for I have had but one case. The authorities do not pay any special attention to it, and I would like to learn whether a radical operation would do the hemorrhagic effusion any good. In a case of tubercular hemorrhagic effusion one German has performed a radical operation and used an emulsion of iodoform in the pleural cavity, and claims to have cured his patient. The authorities usually speak against the use of very strong injections into the pleural cavity, and some of them decry even irrigation, and claim the pus should be allowed to flow out as best it can, and then the case should be drained.—*Lancet-Clinic*

THE PETIT JURY AND THE MEDICAL LAWS.

The readers of the JOURNAL will remember that in the issue of October, 1891, we published the full opinion of the Supreme Court in the case of one L. W. Van Doran, who had been convicted by the Superior Court of Washington county for practicing, *or attempting to practice*, medicine without a license and without being legally registered. The Supreme Court decided "there is no error; and the judgment is affirmed."

During the past week an advertisement appeared in the daily papers of this city lauding the powers of a Dr. Krumm, who claimed to be a "European Specialist," and who advertised to cure all cases of kidney and bladder diseases, nervous diseases, restless nights, obstacles to marriage, and such like, with the usual quack provision, "no cure, no pay." Hand-bills of a similar character with the advertisement in the papers were promiscuously distributed, even being handed to ladies, and hung at his door to be taken and read by passers-by. Fortunately the Criminal Court, Judge Meares, was in session, and the case was reported to the Grand Jury. They found a true bill and the case was called for trial on the 25th of March.

The evidence was that Dr. Krumm had never been registered; that he had advertised himself both in the newspapers and by hand-bills as a specialist in private diseases; that he guaranteed a cure or no pay; that he had taken in only about $18.00. He acknowledged the advertisements, but claimed that what he did was not *practicing*. He acknowledged that when a person came to consult him he asked for his symptoms and gave what he considered the proper medicine for his case; but he asserted he did not make any diagnosis. He acknowledged that he had different medicines for different diseases, and that he had specially good judgment as to the proper medicine to be given in each particular case.

The Solicitor's address to the jury was strong and to the point. He called their attention to the fact that the law was not framed to protect the interests of physicians, but to protect the people from being imposed upon by quacks and ignorant persons masquerading as physicians.

The defendant had no counsel, but addressed the jury in his own behalf. He alluded to the fact that druggists and grocers are daily selling patent medicines, and that advertisements such as his are constantly in the papers. He claimed that he wanted to do what was right, and appealed to the sympathy of the jury.

The Judge's charge was clear and explicit. He told the jury that, according to the decision of the Supreme Court in the case of Van Doran, which was exactly similar to this, in that both defendants claimed they were only selling medicines prepared by themselves, it was not necessary to produce any instance in which the defendant really did practice, but that if he merely "held himself out" to the public as a physician, he was guilty. That the defendant claimed that the Mayor had told him he could see nothing wrong in conducting his business, but that was no excuse, and should not influence the verdict of the jury, though it might have some influence with the Court in its judgment. He charged them that if they had no reasonable doubt that the defendant had held himself out as a physician, they should convict him.

The jury remained out a few minutes and returned a verdict of "NOT guilty!"

The Solicitor warned the defendant that this verdict did not give him permission to continue practicing, and that he must either secure a license from the Board of Medical Examiners or leave

the county, and asked the Court to instruct the defendant as to his position. The Court said that in his opinion the defendant was guilty, though he may not have intended to violate the law.

The statement of these facts is sufficient criticism upon the action of the *intelligent* jury who were *sworn to hear the evidence aud render a verdict accordingly*.

We will only add that the advertisements have disappeared from the papers and the hand-bills from the Doctor's (?) door.

Sequel.—The Doctor (?) quietly folded his tent and stole away to Charleston on the 28th of March! *Victor in strage.*

A NOTABLE GIFT.

The donation to the State University of the large and valuable library of the late Dr Thomas F. Wood, by Mrs. Wood, will be appreciated by all who feel a pride in the welfare of that grand institution, and who would see perpetuated the memory of him who gave so freely of his time and talents to promote the honor of his State.

In his capacity as Editor of the NORTH CAROLINA MEDICAL JOURNAL, Dr. Wood accumulated a rich and extensive library of the best works on medicine and surgery, but besides these his library contained a rare and valuable collection of works on Vaccination and Botany, which were included in the gift to the University. He was a great lover of books, especially those which were rare, and he carefully scanned the catalogues that came to his table from the dealers in rare books in his search for new treasures.

As a fitting testimony of their appreciation the Trustees of the University have established two scholarships, one in the Medical Department and one in the Literary Department, to be known as the "Thomas F. Wood scholarships." The library is to be known perpetually as the "Thomas F. Wood Medical Library."

The University is to be congratulated upon having received such a valuable addition to its library, and one which will add greatly to the efficiency of its Medical Department; and it is eminently fitting that the memory of him who took such an interest in the education of the people of the State should be perpetuated by scholarships at our chief seat of learning.

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Epitome of the Newer Remedies.

A READY-REFERENCE RECORD FOR THE BUSY PHYSICIAN.

In order that the general practitioner, without neglecting other important matters, may keep fully informed as to the science and art of modern therapeutics, the Editors purpose to consider briefly each month, under this caption, the most approved new remedies.

While acknowledging their indebtedness to various writers, their aim will be to omit all elaborate discussion, and to state concisely the bare essentials necessary to an accurate study and correct comprehension of the drugs named, especial attention being given to their therapeutic applications and the modes of their administration.

Upon request of physicians, any new drug that may be specified by them will be considered, or if further private information be desired concerning any one already named, it will be furnished upon application.

Only ethical preparations will be considered.

DIURETIN.

The Salicylate of Theobromine and Sodium.

This combination is supposed to contain 49.7 per cent. of theobromine and 38.1 per cent. of salicylic acid.

Physical Properties.—The salt appears as a white powder. Its taste is disagreeable and soapy.

Solubility.—It is soluble in hot water and alcohol; insoluble in chloroform and ether.

Physiological Action.—A stimulant to the secreting epithelium of the kidney.

Therapeutic Uses.—Diuretic. It is useful in almost all conditions of dropsy, but especially in dropsies of cardiac origin, for which it has been extensively employed.

Administration.—It is preferably administered in capsules or pill form, but the powder may be dissolved in peppermint water. The dose is 15 grains five or six times a day.

Contra-indications.—The presence of acute nephritis.

HYOSCINE.

An Alkaloid from the Seeds of the Hyoscyamus Niger.

Physical Properties.—It is a non-crystallizable body itself, but the hydrobromide of it occurs in fine colorless crystals.

Solubility.—It is soluble in water and alcohol. The solution has a slightly pungent taste.

Physiological Action.—A powerful nervous depressant. It has little effect on the circulation, but sometimes interferes with the respiration, causing croupy breathing.

Therapeutic Uses.—Sedative and hypnotic. As a sedative in nervous affections it is an uncertain drug, at times producing alarming symptoms, but as a hypnotic, in a very limited class of cases, it acts most favorably, and probably for these cases it is the best hypnotic known. These cases consist of those who suffer from insomnia due to acute mania, alcoholic mania or similar cause, or where the patient is very refractory. It is also of great value in spermatorrhœa and nocturnal emissions.

Administration.—The dose is from 1-100 to 1-30 of a grain; for hypodermic use, from 1-200 to 1-50 of a grain.

Contra-indications.—In the sore-throat of scarlet fever, as it may cause spasm of the glottis; also in the insomnia of heart disease and of delirium tremens, because of its probable untoward effects.

ICHTHYOL.

The Ichthyosulphate of Ammonium.

It is obtained by distillation from a bituminous oil found chiefly in the Tyrol, and supposed to be the result of a de-

posit of extinct fish. It contains about 15 per cent. of sulphur.

Solubility.—It is soluble in water; partly so in alcohol and ether.

Physical Properties.—Its disagreeable odor depends upon the presence of an inseparable volatile oil.

Therapeutic Uses.—Antiphlogistic, alterative, astringent, tonic and anodyne. This is one of the most remarkable medicaments of the last decade, and its therapeutic uses are quite extensive. While it is not a true germicide, it is said to arrest the development of bacteria.

Internally: It has given good results in the treatment of diseases of the gastro-intestinal track, of the kidneys, in rheumatism and in all chronic skin diseases.

Externally: In the form of an ointment, it is most highly recommended in chronic eczema, acne, urticaria, erysipelas, and even in lupus. In frost-bites, chilblains and in burns it is of service, and Agnew speaks favorably of its use in Lymphatic enlargements. Prof. Hare also extols its use in acute sprains, for the removal of swelling and pain.

Administration.—The internal daily dose is from 10 to 30 grains, and is best administered in capsules or pill-form. Ointments and solutions, for external applications, should be of the strength of from 10 to 50 per cent. Owing to its disagreeable odor, oil of citronella ought to be added to it as follows:

℞.—Ichthyol..... ʒ ij
Ol. Citronellæ..... ♏ xx
♏. Adipis Benzoin..... ʒ i
L. Ichthyol Ointment.

URETHRAN.

A Carbonate of Ethylic Ether.

It is obtained by the interaction of nitrate of urea and ethylic alcohol at a temperature of about 250 F.

Physical Properties.—It occurs in crystalline, odorless masses, having a taste resembling that of saltpetre.

Solubility.—Is easily soluble in any medium; the watery solution must be neutral.

Physiological Action.—It is free from all by-effects, and produces a physiological sleep, but has no influence on pain.

Therapeutic Uses.—Hypnotic, pure and simple. It is especially serviceable for use with children, and is a sure and safe medicament. It also possesses antidotal powers against convulsant poisons, as strychnine, picrotoxin, resorcin, etc.

Administration.—The dose is from 15 to 45 grains, but even as high as 60 grs. may be given. Hypodermically the dose is 4 grains.

Incompatibles.—Strong alkaline medicines with it must be avoided, because of the decomposition of the drug.

Prescriptions:

℞.—Urethran..... ʒ ss
Aq. destil..... ʒ iij
♏. Syr. Limonis..... ʒ i
Sig. ʒ ij at night.

℞.—Urethran..... ʒ ss
Ex. Rad. Glycyrrh., fl... ʒ ij
♏. Aq. destil..... ʒ iij
Sig. From one to two teaspoonsful in sweetened water, for a child from eight to twelve years—at night.

Reviews and Book Notices.

A Text-Book of the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes. Illustrated. Sold by subscription only. Cloth $5.00. Philadelphia: W. B. Saunders Publisher, 1893..

The first volume of this work has just been issued. It is a handsome royal octavo volume of about 1,000 pages, containing numerous wood-cuts and colored plate illustrations to elucidate the text whenever necessary. To say that it will become as monumental a work as Pepper's System of Medicine, is to give but scant praise, for we are assured, after a careful survey of its contents, that it will soon take a high rank in the list of such medical treatises. It is composed of a series of exhaustive articles (each bearing the author's name) upon each disease or set of diseases, by various authorities, selected from the best talent of the various medical schools of this country. It, therefore, contains the most recent advances in the science of medicine, including the study of the bacterial origin of various diseases as well as the bearing of the knowledge so gained upon prevention and cure.

The methods of diagnosis are given the most minute and careful attention, while in the matter of treatment there is much that is entirely new, and at the same time perfectly practical.

The following list of authors and their subjects alone give a guarantee of the merits of this volume: Hygiene, J. S. Billings, M.D.; Kidneys and Lungs, Francis Delafield, M.D.; Peritoneum, Liver and Pancreas, R. H. Fitz, M.D.; Urine (Chemistry and Microscopy), Jas. W. Holland, M.D.; Heart, Aorta, Arteries and Veins, E. G. Janeway, M.D.; Diathetic Diseases (Rheumatism, Rheumatoid Arthritis, Gout, Lithæmia and Diabetes); Henry M. Lyman, M.D.; Blood and Spleen, William Osler, M.D.; Fevers (Ephemeral, Simple Continued, etc.), William Pepper, M.D.; Tuberculosis, Scrofula, etc., W. Gilman Thompson, M.D.; Inflammation, Fever, Bacteriology, etc., W. H. Welch, M.D.; Scarlatina, Measles, etc., James T. Whittaker, M.D.; Air-Passages (Larynx and Bronchi) and Pleura, James C. Wilson, M.D.; Nervous, Muscular and Mental Diseases (Including Opium Habit, etc.), Horatio C. Wood, M.D., and William Osler, M.D.

History of the Life of D. Hayes Agnew, M.D., LL.D. By J. Howe Adams, M.D. With 14 full-page portraits and other illustrations. In one large Royal Octavo volume, 376 pages, Extra Cloth, beveled edges, $2.50 net; Half Morocco, gilt top, $3.50 net. Sold only by subscription. Philadelphia: The F. A. Davis Co., Publishers, 1892.

This memoir of the life, character and accomplishments of this "grandest figure in American medicine" is particularly charming reading. It is written in a clear and dignified style, and fully and forcibly portrays the leading incidents and prominent characteristics of this famous surgeon.

This "labor of love" will serve as an inspiration and stimulus to the medical profession, and Dr. Adams' highly appreciative biographical sketch, we are confident, will be greatly valued by the large number of surgeons by whom Dr. Agnew's memory will always be cherished.

The Year-Book of Treatment for 1893. A Critical Review for Practitioners of Medicine and Surgery. A Series of Contributions by Twenty-Two Writers. In one 12mo. volume of 500 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co., 1893.

It would be difficult to imagine a book more nearly suited to the every-day

needs of the medical practitioner or writer than this. It, year by year, keeps him apprised of important advances in all branches of medicine, and presents them in a well condensed and classified form for ready reference. The demand for this work in the past has rendered it possible for the publishers to offer it at a price within the reach of all.

A Treatise on Diseases of the Rectum, Anus and Sigmoid Flexure. By Joseph M. Mathews, M.D., Professor of Principles and Practice of Surgery and Clinical Lecturer on Diseases of the Rectum, Kentucky School of Medicine, etc. With six chromo-lithographs and numerous illustrations. Royal Octavo. 537 pages. Cloth. D. Appleton & Co., New York, 1892.

Dr. Mathews claims to have been a pioneer in making a specialty of this branch of surgery, and this book is the outcome of his fifteen years' experience in rectal sugery. In the introduction he prepares the reader for the nature of the statements he will find in the body of the book when he says: "I shall take occasion to speak plainly what I think, and if I differ from the authorities that have written before me, on important questions, I beg to say that it is simply because I believe in the truth of what I am saying. * * * I shall quote from comparatively few authors, and shall give no foot-notes."

The statements contained in the book are original, and are made with commendable clearness and simplicity, and in nearly all instances cases are cited in illustration of theories advanced. In the introductory chapter reasons and rules are laid down for making examinations, and the author's estimate of the various means of diagnosis freely given. In the subject devoted to the treatment of fistula in ano, the author describes the treatment by means of the fistulatome, of which instrument he claims to be the inventor. Chapter X. treats of the Nervous or Hysterical Rectum, and in it the author gives his reasons for opposing some of the views of Prof. Wm. Goodell. Chapters are also included upon Diseases of the Sigmoid Flexure, Anatomy of the Rectum in Relation to the Reflexes, Antiseptics in Rectal Surgery, etc. In the last, the author claims to have met with vastly better results since the adoption of rigid antiseptic precautions.

The volume is practical and useful, and is worthy of the elegant style in which the publisers have presented it.

BOOKS RECEIVED TOO LATE FOR THIS ISSUE.

The following will be reviewed next month:

Diseases of the Nervous System, by Dr. Ludwig Hirt: D. Appleton & Co., New York.

Diseases of the Throat, by Dr. Carl Seider: D. Appleton & Co., New York.

Hydrotherapy at Saratoga, by Dr. J. A. Irwin: Cassell Publishing Co., New York.

Diseases of the Skin, by Dr. P. H. Pye-Smith: Lea Brothers & Co., Philadelphia, Pa.

Psychopathia Sexualis, by Dr. R. Von Krafft, Ebing: The F. A. Davis Co., Philadelphia, Pa.

Proceedings of the Philadelphia County Medical Society (Session of 1892): Lewis H. Adler, Jr., M.D., Editor.

Registration Report of Rhode Island: Edited by Chas. H. Fisher, M.D.

Diseases of the Skin, by Charles C. Ransom, M.D. Lea Brothers & Co., Philadelphia.

The Diseases of Inebriety from Alcohol, Opium and Other Narcotic Drugs. Arranged and compiled by the American Association for the Study and Cure of Inebriety, New York.

Abstracts.

THE VITALITY OF COMMA-BACILLI.—As the result of a biologic study, Uffelman found that comma-bacilli possess considerable resistance to cold. They survive exposure to a temperature of 12.6° F.; the result depends upon the intensity of the cold and the duration of the exposure. A decided difference was observed in the behavior of recent and of old cultures.

SLOW PULSE.—According to Dr. Prentiss, the chief causes of slow pulse are the following: 1. Diseases or injuries to the nerve-centres, producing either irritation of the pneumogastric or paralysis of the sympathetic (accelerator) nerves of the heart. 2. Diseases or injury of the pneumogastric nerve, increasing its irritability. 3. Disease or injury of the sympathetic nerves of the heart, paralyzing them. 4. Disease of cardiac ganglia, by which the influence of the pneumogastric nerve preponderates. 5. Disease of the heart-muscle (degeneration), whereby it fails to respond to the normal stimulus. 6. The action of poisons, as lead or tobacco, either on nerve-endings or centres. The poison generated in salt fish. Another possibility is malarial poisoning.

THE RATIONAL TREATMENT OF PUERPERAL SEPTIC INFECTION.—Dr. J. L. Rothrock (*Northwestern Lancet*) believes that puerperal infection is caused by two widely different groups of bacteria, which must be distinguished since they necessitate different plans of treatment. In infection by the pathogenic group of bacteria local treatment is of little avail unless instituted early, and it should be vigorously and systematically carried out, even at the risk of being superfluous. The curette should not be used except in the early stages. When infection is localized to the uterus and adnexa, recovery is the rule, and tonic and supporting treatment the indications. If suppuration ensues, the abscess should be drained as soon as the diagnosis can be made with certainty. Most cases of peritonitis which recover by the expectant plan of treatment are localized. In sthenic cases of peritonitis surgical interference is not only justifiable, but is the rational mode of treatment. In the asthenic variety operation is of doubtful utility, and contraindicated if the patient is in collapse.

DETECTION OF FOREIGN BODIES IN THE CORNEA.—Dr. Jackson (*Med. Times and Register*) states that an aid to the detection of foreign bodies in the cornea is the use of a solution of fluorescin. A good solution consists of—

℞.—Fluorescin.....gr. j
Sodium carbonate....gr. ij
Distilled water..... ʒ j

A drop of this is placed on the suspected cornea, and after two or three minutes the excess is allowed to be washed away by the tears. It is then found that while on the uninjured cornea not the slightest effect has been produced, the corneal tissue in the neighborhood of any recent abrasion has been stained a light green. This discoloration directs attention to the locality of the injury, and the stained tissue furnishes a background against which any foreign body of dark color is readily seen.

A UNIQUE METHOD OF TREATMENT FOR HEMORRHAGE FROM TYPHOID FEVER.—A unique method of treatment for hemorrhage of the bowels in typhoid fever, writes Dr. Tuttle (*Southern Med. Journal*), is that of "tieing off" the

limbs, now in use in New York hospitals with most beneficial effects. This consists in passing an elastic band with a buckle on it (a piece of suspender will answer admirably) around each of the limbs close to the body. These are tightened sufficiently to check the venous return and yet not obstruct the arterial flow, thus keeping a large amount of blood out of the trunk, and thereby greatly lowering the pressure in the intestines. At proper intervals, to be determined by the condition of the limbs, one band at a time is loosened sufficiently to permit free circulation for about ten minutes, and then tightened again. This is continued for several days, depending entirely on the severity of the hemorrhage.

THE TREATMENT OF CHOLERA.—The *Gazette des hôpitaux* for February 25th contains a cyclopædic article on this subject by one of the hospital physicians of Paris, Dr. L. Galliard. Summarizing, in conclusion, he says that in slight cases rest in bed and abstinence from solid food are almost all that is required. In grave cases, however, the precursory diarrhœa should be treated energetically. If this diarrhœa cannot be cut short, no time should be wasted in trying opium or such feeble antiseptics as the salts of bismuth, for example, but recourse should be had at once to one of the two remedies which commend themselves to our confidence. These are calomel and lactic acid. They should not both be used, but one or the other be chosen. If it is calomel, acid drinks are to be avoided. If there is a tendency to collapse and cyanosis, hot baths are to be employed, together with frictions, subcutaneous injections of ether and caffeine, and inhalations of oxygen. If there is algid collapse, with the radial pulse imperceptible, transfusion should be used. The proper drinks are iced aerated waters, champagne diluted with water and iced, and very weak iced coffee. Neither milk, nor soup, nor alcohol should be given before the stage of reaction. Tea often causes vomiting. If the use of milk and other alimentary substances is allowed too soon, the danger of relapse is incurred. The use of ass's milk is of service in the gastric irritability of convalescents; so is that of peptonized enemata. In spite of their impatience, convalescents must be kept in bed for a long time.

THE USE OF PURGATIVES IN NURSING WOMEN.—In the March number of the *Practitioner* Dr. William J. Gow alludes to a popular impression that purgatives administered to a nursing woman often lead to disturbance of the suckling's bowels, gives a condensed account of his own experiments with several of the ordinary purgatives, and expresses his conclusion that magnesium sulphate administered to a nursing woman frequently causes looseness in the child, while senna, cascara sagrada, and aloes rarely have that effect.

TRIONAL AS A HYPNOTIC.—In the March number of the *Journal of Nervous and Mental Disease* there is a summary of an account given by Dr. Brie, of Bonn, of his experience with trional. In forty-two cases of insanity he has given 360 doses ranging from 15 to 45 grains. He believes it to be the best of hypnotics, being almost tasteless, easily administered, acting rapidly, and rarely giving rise to unpleasant after-effects. Its use is indicated in simple insomnia and in that of insanity with restlessness and excitement.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

SPECIAL PREMIUM OFFER.

To each of the first two *paid-up* subscribers to the NORTH CAROLINA MEDICAL JOURNAL supplying the missing word on page 192 of this issue in the "reading notice" of the Antikamnia Chemical Co. we will mail (postage paid) a Self-Registering Clinical Thermometer. To each of the first two persons, other than the above, who supply the missing word we will give a year's subscription to this JOURNAL.

Answers, which should be sent on a postal card, must not reach this office before the 20th of April. This is designed to give those readers living at a distance an equal chance in winning the prizes.

Look out for the valuable offer next month!

"Inaugural" pneumonia is now specified as a new type of this disease.

We are pleased to learn that Dr. John McIver, of Jonesboro, has recently very much improved in health.

A Yankee tradesman advertises: "Any person who can show me that my cocoa is injurious to health, will receive ten boxes gratis."

Dr. Hubert Haywood, Surgeon General of the State, has commissioned Drs. Hodges and Battle as his Assistant Surgeon Generals.

Dr. George C. Worth, of Wilmington, a recent graduate of medicine at Bellevue, has received an appointment on the medical staff of Charity Hospital.

Four successful laparotomies have been performed at the Wilmington City Hospital within the past thirty days, three of them by one surgeon of this city.

Dr. W. W. Young, of Henderson, died suddenly, March 11th, of rheumatism of the heart. He had been a practitioner for thirty years, and was most highly esteemed.

Mrs. Lot Irving, of Buena Vista, Ga., aged twenty-five, gave birth March 16th to her thirteenth child. The mother is doing well and the father is contented with his Lot.

Attention is called to the letter of Dr. Munroe, Chairman of Section on Surgery, which is being sent to every physician with the request to report his surgical cases. Every one should respond at once, so as to give him ample time to tabulate the reports. Dr. Hodges, of this city, will deliver the address to Dr. Munroe's graduating class at Davidson College on the night of May 5th.

Dr. Love, editor of the *Mississippi Medical Mirror*, takes occasion to say in a recent issue, descanting upon "official organs," that his journal is "the organ of nothing, save of the medical profession of America." With all due deference to this boastful dictum of a Professor whose name figures, perhaps, as often in the recommendations of certain medicines as anywhere else, we gently remark that we are proud to be the

"official organ" of medical societies, and one in particular.

Dr. W. H. Bagwell has moved from Pactolus to Greenville, Pitt county, where he will practice his profession.

The Association of Military Surgeons of the National Guard of the United States will be held at Chicago on August 8th to 10th, instead of at Washington City, D. C.

The Local Committee of Arrangements at Raleigh consists of Dr. James McKee, Chairman; Dr. W. I. Royster, Dr. J. W. McGee, Dr. K. P. Battle and Dr. W. H. Bobbitt.

Dr. R. H. Williamson, of Yanceyville, died a few days ago. He had been sick a long time, and his death was not unexpected to his many friends in the country. We extend our heartfelt sympathy to his bereaved family.

The physicians of Randolph county (nineteen in number) have signed a "Delinquent List Agreement." We wish them all luck and wealth, but at the same time deplore the necessity of such action upon the part of the profession.

We congratulate the Board of Directors of the North Carolina Insane Asylum upon the selection of Mr. J. B. Broadfoot, of Fayetteville, as their President. He succeeds the lamented Richard H. Smith, and, though yet a young man, will worthily fill his place.

We regret very much that the encroachment upon our space has crowded out this month the "Notes of Practice," which has proved a very acceptable department to our readers. Instead, however, we call attention to the new department, "Epitome of the Newer Remedies," which we intend also to edit each month. We trust that our readers will note our enterprise in getting out and printing so promptly the new health laws, and bear with us for this time. We are doing all we can to publish a journal, every page of which shall be practical, interesting and instructive, so just give us a little time and we will have every department every month, new and fresh and full.

Symptoms of sea-sickness: First, the sufferer is afraid he will die; then he is afraid he will not die.

Rozetta Hinton, a colored woman, who lives near Princeton, N. C., was a grandmother before she was 27 years old. She was under 13 when her daughter was born, and this daughter became a mother before she was 14.

"Edmond Cole, of Fork township, Wayne county, N. C., is 85 years of age and his youngest child is less than one month old. His first wife's six children are all dead. His present wife's five children are all younger than two children of whom he is the great grand father." The *Herald* (Smithfield) is responsible for this information.

The Rev. Dr. J. P. McFerrin, of Chattanooga, Tenn., has created a decided sensation in medical circles in that city. During his sermon, in referring to the immorality existing in the city, the "Rev." said that "most physicians' offices in this city were regular places of assignation. That no matter what illness or complaint befell women, it was only when death was imminent that a male physician should be permitted to examine them, and then in the presence of some other member of the family." The Chattanooga Medical Society has called a special meeting to take action in the matter, and we guess the "Reverend" will very likely "shake the dust."

Reading Notices.

THE THERAPEUTIC MERIT OF COMBINED REMEDIES, by Stephen J. Clark, M.D., of New York, N. Y.—In nearly every case where quinia is indicated, it can be advantageously combined with antikamnia, which thus becomes a valuble adjunct to quinia. Quinia, for example, is a most decided febrifuge, and its action is usually promptly reliable; but when combined with this member of the aromatic series, its action is markedly increased. Some individuals, however, cannot take any of the coal-tar derivatives; consequently the use of antikamnia will be inhibited in such cases; on the other hand, some patients cannot take quinine.

An important benefit to be derived from the addition of antikamnia to quinine is that it removes the sense of fullness in the head, constriction about the forehead and tinnitus aurium—so common when the latter drug is administered alone; the disturbing action of quinia on the auditory nerve is suspended to a great extent, and the usual quinine deafness is absent. The combination of these agents in tablet form is a happy one.

The combination of antikamnia with quinia is valuable in the racking headache, with high fever, attendant upon malarial disorders. It is likewise valuable in cases of periodical attacks of headache of non-defined origin; of the so-called "bilious attacks;" of dengue; in neuralgia of the trigemini; in that of "ovarian catarrh;" and, in short, in nearly every case where quinine would ordinarily be prescribed.

Binz claims specific antiseptic powers for quinia; other writers are in accord with him on this point, and report good results from large doses in septicæmia, pyæmia, puerperal fever and erysipelas. It is a germ-destroyer of the bacilli of influenza (la grippe). A full dose of quinine and antikamnia will promptly relieve many cases of this disease. In the gastric catarrh of drunkards, this combination is valuable. Quinia is a poison to the minute organism—sarcina; and antikamnia exerts a soothing, quieting effect on the nerve filaments. A full dose of antikamnia and quinia will often arrest a commencing pnuemonia or pleuritis. This combination is also useful in the typho-malarial fever of the South—particularly for the hyperpyrexia—both quinia and antikamnia, as previously said, being decided fever-reducers.

The germicide power of quinia is the explanation of its success in the treatment of malarial disturbances. Thus it is also a prophylactic against the various manifestations of malarial poison, and as such it can be relied on. The cause of malaria as a disease consists of pigmented bodies, which penetrate the interior of the red blood corpuscles—pigmented bodies of various shapes and flagellate organisms—both having amœboid movements—the filaments being in active vibration.

In meningeal troubles, attended by marked acceleration of the heart due to the rise in the fever temperature, full doses of quinine and antikamnia at intervals of, say, about four hours, will be productive of good. In measles, large doses of the combination at night—say ten grains of each for adults (doses for children in proportion), will relieve the distress of the catarrhal pneumonia, and modify, in great degree, the amount of the exudative products. The periodical neuroses which may be either regular or irregular in their manifestations, but which are dependent on the malarial germ for their origin, are all controllable by the combination of quinine and antikamnia. Examples of such neuroses are asthma, laryngismus stridulus, summer catarrh, etc. Indeed, for the hemicrania and neuralgias of malarial origin, the combination of quinine and antikamnia, just alluded to, may be declared *a specific*.

The dose of quinine may be made smaller than usual when administered with antikamnia. Thus, one or two tablets of two and a half grains each of quinine and antikamnia will prove sufficient for great utility in puerperal mania, in the headaches of advanced age, accompanied with vertigo and despondency.

This combination is capable, by the combined influence of each drug on the

nervous system and blood, of restraining all the processes which develop heat, organic changes and muscular motion; therefore, it is "the one thing needful" in the treatment of the hyperpyrexia of malarial fevers In the vast majority of cases, when necessary to administer quinine, if antikamnia be added to the prescription, the results will be surprising.

Formerly, the idea prevailed that, in order to render the treatment of ——— fevers efficient, the gastro-intestinal tube should be cleaned out by emetics and cathartics. This, however, is a fallacy, as the conditions they are intended to remove depend mainly on the malarial poison, for which the combination of quinine and antikamnia is the specific cure.

In speaking of the treatment of pneumonia by quinine and antikamnia, Prof. Palmer say: "The effects desired, and certainly, as a rule, produced, are a decided reduction of temperature, a marked diminution in the frequency of the pulse, a decided moisture of the skin or free sweating, a slower and more easy respiration, or relief from pain, and the feeling of fullness of the chest, a diminution of the cough and of the tenacious and bloody character of the expectoration; and, in short, not only is there a checking of the fever, but of all evidences—general and local—of the pulmonary engorgement and inflammation."

In Meniere's disease, or "labyrinthine vertigo," this combination has, by persistent use, entirely removed the trouble in many cases. The curative effects of quinine and the coal-tar antipyretics in sunstroke are well known, and have been used recently with great benefit in numerous instances in this country and in India. In hysteria, and even in epilepsy, the combination of quinine and antikamnia is often indicated, and will frequently give the desired results. In whooping-cough and hay fever, quinine and antikamnia will prove beneficial.

The tablets of equal parts of quinine and antikamnia, spoken of in this article, can be administered by the rectum, with good effect. They should first be dissolved in whiskey, and then water can be added in any quantity needed—always remembering the total quantity of each drug in such enemata.

66 West Tenth Street.

—*Virginia Medical Journal.*

Diseased Appetite of Hysterical Women:

℞.—Tinct. Ignatiæ.....1 drachm.
Celerina [Rio].....4 oz

M. Sig. Teaspoonful three times daily.

A SPECIFIC IN VOMITING IN PREGNANCY.

Drugs and Digestion.—The discussion of a paper with this title, read by Dr. R. G. ECCLES at a previous meeting (see vol. xliv, page 600), was now taken up.

Dr. P. H. KRETZSCHMAR said that he had made some investigations of the same subject several years before, and had arrived at some of the reader's conclusions.

Dr. ARNOLD STUB fully coincided with Dr. Kretzschmar as to the value of the Pharmacopœia as a guide both for apothecaries and for physicians. He knew little of Ingluvin, and less of what became of it after it entered the stomach, but he had prescribed it for the vomiting of pregnancy, and it had checked it after everything else had failed; consequently, he should continue to use it in such cases, and perhaps in those cases only. *New York Medical Journal.*

Note Relative to the Buffalo Lithia Water.

WM. A. HAMMOND, M.D., WASHINGTON, D. C.,

Surgeon-General U. S. Army (retired) formerly Professor of Diseases of the Mind and Nervous System in the University of New York, etc.

There is a point in relation to the therapeutical efficacy of the Buffalo Lithia Water which has not as yet, I think, received sufficient attention. It is well known that many cases of diseases of the nervous system are complicated with lithæmia, and that unless this condition is removed a cure is very often retarded and not infrequently prevented. It is quite commonly the case that in cerebral congestion producing insomnia, nervous prostration, resulting from over-mental work of much emotional disturbance, and in epilepsy (to say nothing of many cases of insanity,) an excess of uric acid in the blood is often observed. This state appears to be altogether independent of the character of the food, for no matter how careful the physician may be in regard to the diet of his patient, the lithæmic condition continues. I have tried to overcome this persistence by the use of phosphate of ammonia and other so-called solvents for uric acid, but without notable effect.

Several years ago, however, I began to treat such cases with Buffalo Lithia Water, with a result that was as astonishing to me as it was beneficial to the patient, so that now in all cases of nervous diseases under my charge in which there is an excess of uric acid in the blood, I use the Buffalo Lithia Water in large quantities. By this I mean that I do not have the patient drink merely a tumbler or two in the course of the day, but that I flood him, so to speak, with the water, making him drink a gallon, or even more, in the twenty-four hours. By this course the urine after a few days ceases to deposit uric acid crystals on standing, the morbid irritability of the patient disappears, the tongue becomes clean, the wandering pains in the head are abolished, and the system is rendered much more amenable to the special treatment which may be necessary for the cure of the disease from which the patient suffers.

I have tried carbonate of lithia dissolved in water in various proportions, but it certainly does not, in cases to which I refer, have the same effect as Buffalo Lithia Water.

Washington, D. C., January 25, 1892.

UNIVERSITY OF MARYLAND—SCHOOL OF MEDICINE
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DR. WM. T. HOWARD,

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All the Affections Peculiar to Women

that are remediable at all by mineral waters. In short, were I called upon to state from what Mineral Waters I have seen the greatest and most unmistakable amount of good accrue in the largest number of cases in a general way, I would unhesitatingly say the Buffalo Springs in Mecklenburg County, Virginia."

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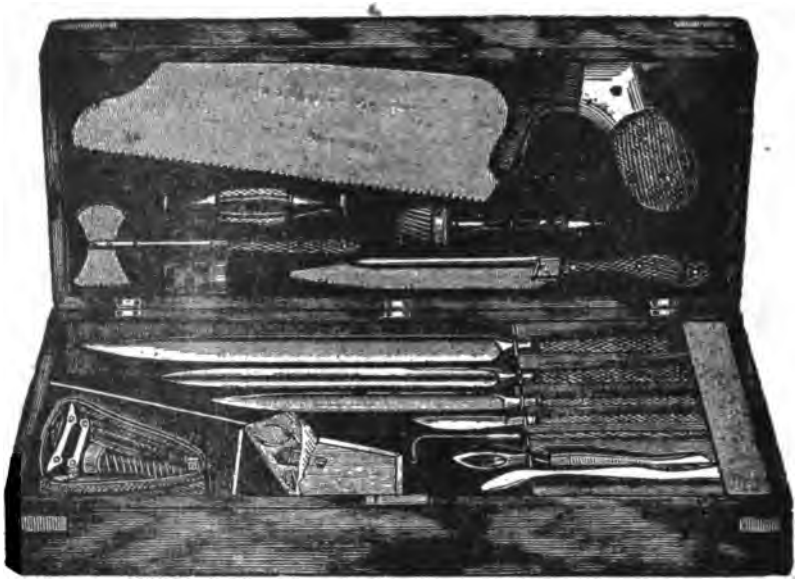

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